

**"Me time":
Leadership perception through the social evaluation of solitude preference**

Julian Jonathan Markus
Erasmus University Rotterdam
Rotterdam School of Management
DATE 15/06/2022



Student number: 553135jm
Research Proposal – Master Thesis
MSc. Program: Human Resource Management
Thesis supervisor: Dr. Meir Shemla
Co-reader: Hodar Lam, MPhil



RSM - a force for positive change



Preface

The copyright of the master thesis rests with the author. The author is responsible for its contents. RSM is only responsible for the educational coaching and cannot be held liable for the content.

Acknowledgements

I would like to express my gratitude to my coach and supervisor, Dr. Meir Shemla, for his advice and feedback and especially for challenging me to get the best out of myself. Furthermore, I would like to express my gratitude to my co-reader Hodar Lam, MPhil. for helping me develop the topic, advice, feedback, and the first data set. Lastly, I want to thank everyone in my personal environment for their moral support.

Executive summary

Being a successful leader depends on a leader's ability to influence followers to reach organizational goals. However, how inclined followers are to follow their leader and perform is dependent on the leadership perception. Follower perceptions and attitudes can make or break leaders' success because of their reactions. It has been suggested that expressing a preference for solitude may impact leadership perception through the evaluation of agency and communality. Little research has attempted to explore how preference for solitude impacts leadership perceptions, why it has an impact, and the potential consequences. The thesis aimed to explore the impact of solitude preference on leadership perception through the evaluation of agency and communality, how it functions, and how behaviors towards leaders are impacted. In order to do so, this study drew on concepts from solitude theory, social evaluation theory, leadership perception theory, and their shared theorizing about actions or behaviors which trigger evaluations and perceptions which result in behaviors.

We gathered data from two samples. 255 Bachelor of Business Administration Students at the Rotterdam School of Management in the Netherlands. 287 Prolific members from the United Kingdom. The 255 were equally divided over two scenarios and 287 over six. Depending on the scenario, participants were introduced to a fictional colleague or leader that expressed a preference for solitude (high vs. low) which was or was not gendered.

Results indicated that the social evaluation of agency was higher, and communality was lower when the scenario presented a high preference for solitude. Consequences of this evaluation were found in intended behaviors where higher perceived agency resulted in more facilitative and less harmful intentions, whereas lower communality resulted in less facilitative and more harmful intentions. Results showed that a participant's preference for solitude decreases negative effects and increases positive ones. The separate roles of agency and communality in the tested relationship were contradictory, but simultaneous assessment showed

that the concepts partly explain the relationship between solitude preference and intended behaviors.

This thesis contributes to research on leadership perceptions and sheds light on the relationship between leaders that prefer solitude, perception by followers, and consequential behaviors by followers. The thesis contributes to the development of leadership perception theory by providing evidence that leadership perceptions are shaped through evaluating agency and communality in a leader by followers. Our principal contribution is the start of developing a model to broaden our understanding of what can impact leadership perceptions and the potential consequences for leaders. Based on these results and contributions, future work can continue the development of the model, which incorporates actions, leadership perceptions, and consequences to inform leaders on how they are perceivers and to inform them on expected reactions to how they are perceived. These sources of information can enable leaders to manage how they are perceived and help them capitalize on positive consequences and manage negative ones.

Considering the limitations of the studies, it is advised for future research to use a more heterogeneous sample, including more age, functional, and cultural diversity, to enhance the understanding and generalizability of the results. Also, using methods with non-categorical predictors to general non-relative results is advised.

Contents

Preface	2
Acknowledgements	3
Executive summary	4
1. Introduction	7
2. Theoretical framework	10
2.1. Preference for solitude.....	10
2.2. Social evaluation	11
2.3. Solitude and social evaluation	12
2.4. Leader perception	13
2.5. Current research	19
3. Study 1	20
3.1. Method	20
3.2. Results	22
3.3. Discussion	25
4. Study 2.....	25
4.1. Method	25
4.2. Results	27
4.3. Discussion	37
5. General discussion.....	38
5.1. Discussion and theoretical contributions.....	38
5.2. Limitations and additional further directions	40
6. Conclusion	43
Bibliography.....	44
Appendices	51
Appendix 1, Regression table hypothesis 2	51
Appendix 2, Regression tables hypotheses 5 & 6	52
Appendix 3, Regression tables additional analysis	54

1. Introduction

"Periods of solitude, whether brief moments or extended seclusions, have a range of functions and meanings in the human life" (Larson, 1990).

Deciding to spend time in solitude or experiencing solitude without choosing it is a common aspect of daily life (Larson, 1990). Solitude entails the absence of personal and virtual social interaction, with or without the physical presence of others (Ren & Evans, 2021). Spending time in solitude by choice can take the form of eating at a restaurant alone, watching tv at home on a Friday night, or *"me time"*. However, these instances of solitude can also occur when someone is, for example, socially isolated or anxious to go out (Burger, 1995; Long et al., 2003; Coplan, Hipson, et al., 2019). The experience of solitude is ubiquitous and can be both positive and negative (Coplan, Bowker, & Nelson, 2021, pp. 1-2). However, preferring solitude (i.e., preference for solitude (Ren & Evans, 2021)) to experience its positive aspects may induce interpersonal costs through negative evaluations (e.g., prejudice (Ren & Evans, 2021)). The psychosocial process of evaluating others is known as *"social evaluation"* (i.e., evaluation of any individual based on two general constructs: agency/competence [e.g., competent, intelligent, skilled] and communality/warmth [e.g., caring, supportive, considerate] (Fiske, Cuddy, & Glick, 2007)). Recent research has shown interpersonal costs of preferring solitude in terms of social evaluation. They found that individuals with a high (vs. low) preference for solitude are evaluated as more agentic but less communal, and they suffer a higher risk of being ostracized (i.e., excluded or ignored) (Ren & Evans, 2021).

Higher evaluations of agency and lower evaluations of communality can be of particular interest to leaders regarding their success (i.e., a leader's ability to influence followers to reach organizational goals (Yukl, 2005)). Leadership perception theory stipulates that the perception of a leader is formed through follower attitudes (i.e., subjective assessments of an object in terms of the degree of it being favorable or unfavorable (e.g., Eagly & Chaiken, 1993)), which impact

evaluations by followers and behaviors towards leaders (Lee et al., 2015; Lord, Foti, & De Vader, 1984). Studies on leader stereotypes have shown that leaders are stereotyped as agentic individuals. Moreover, males are stereotypically agentic, whereas females are stereotypically communal. Unlike male leaders, female leaders need to satisfy the expectations of both leader and gender stereotypes (Fiske, Cuddy, & Glick, 2007; Koenig, Eagly, Mitchell, & Ristikari, 2011). Triggers of specific attitudes through stereotypes instigate changes in the evaluation of and behaviors toward the leader (e.g., facilitating, harming (Ren & Evans, 2021)) (Baril, Mahar-Potter, & Reavy, 1989; Cuddy, Fiske, and Glick, 2007; Eagly & Karau, 2002; van Knippenberg & van Knippenberg, 2005; Powell & Butterfield, 1979).

In their review paper on leadership perception theory, Lee et al. (2015) showed that the conventional assessment of leadership perception uses a leader-centric approach which assumes that measures accurately reflect the leader. They also elaborated on bodies of research that have shown that the perception of a leader is partly dependent on the attitudes of the follower regarding specific leader preferences, behaviors, actions, and characteristics (e.g., Hansbrough, Lord, & Schyns, 2014; Sin et al., 2009). Thus, arguing against measures that do not consider follower attitudes in measuring leadership perception. Therefore, Lee et al. (2015) suggested a paradigm shift in leader perception research from a leader-centric approach to a follower-centric approach which characterizes leadership perceptions as a property of both the follower and the leader. For the follower-centric approach, they suggested further development of measures along the lines of agency and communality within social cognition or social evaluation (Lee et al., 2015).

Research has shown that solitude preference affects the evaluation of agency and communality and triggers specific attitudes through stereotypes instigating changes in the evaluation of and behaviors towards leaders (Baril, Mahar-Potter, & Reavy, 1989; Cuddy, Fiske, and Glick, 2007; Eagly & Karau, 2002; van Knippenberg & van Knippenberg, 2005; Powell & Butterfield, 1979; Ren & Evans, 2021). Leadership perception theory also stipulates that attitudes

impact evaluations by followers and behaviors towards leaders (Lee et al., 2015). However, existing leadership perception measures do not suit the follower-centric approach, and there is a need to develop such measures along the lines of agency and communality (Lee et al., 2015). In drawing on these findings and suggestions, we aim to develop a model of leadership perception incorporating; a preference for solitude as a trigger of stereotype-based attitudes, measures of perceptions through evaluation in terms of agency and communality, and measures of behavioral tendencies. Therefore, in this paper, we will argue that leaders expressing a high (vs. low) preference for solitude are evaluated as more agentic and less communal and that these perceptual differences, in turn, impact behaviors towards leaders. The research question to investigate these relationships is; "*When and how does leader solitude expression affect the follower's leadership perception through agency and communality, and what are the consequences of this relationship for behaviors towards leaders*".

The present research draws on social evaluation and leadership perception theories as guiding overarching theoretical frameworks (Asch, 1946; Bakan, 1956; Cuddy, Fiske, & Glick, 2008; Eagly & Chaiken, 1993; Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Cuddy, & Glick, 2007; Lee et al., 2015; Lord, Foti, & De Vader, 1984; Wojciszke, 2005). We aim to develop a more comprehensive understanding and approach to studying leadership perceptions through social evaluation, stereotype-based attitudes, and behavioral reactions by followers instigated by leaders expressing a preference for solitude. The study will consist of two research studies. In the first study, we will contribute to the advancement of knowledge by replicating the Ren & Evans (2021) study to confirm that a high (vs. low) preference for solitude results in higher social evaluation of agency and lower social evaluation of communality to understand their findings better. In the second study, we will advance knowledge by assessing the implications of solitude preference on leadership perception through the social evaluation of leaders. Moreover, we will extend our

understanding of the impact of solitude preference by exploring followers' behavioral consequences towards leaders when leaders express a high (vs. low) preference for solitude.

Below we provide a theoretical framework on preference for solitude, social evaluation, and leadership perception. The theoretical framework develops hypotheses that will be tested in the studies. After the framework, the studies will be presented with discussions, limitations, and suggestions for further research. A current research chapter was added to the theoretical framework to clarify which study targets which segment of the theoretical framework. This study will contribute to research by providing insights into how expressing a preference for solitude affects the perception of individuals and leaders through social evaluation. Secondly, the research will contribute to the development of leadership perception theory by providing evidence that leadership perception is shaped through evaluating agency and communality in a leader by followers. Lastly, the suggested model will develop the follower-centric approach to leadership perception.

2. Theoretical framework

2.1. Preference for solitude

Solitude is a ubiquitous phenomenon that can be experienced as negative (e.g., upset, sadness) as well as positive (e.g., emotion- regulation, relaxation) (Coplan, Bowker, & Nelson, 2021, p. 1-2). Individual differences in preferring solitude are described as the preference for solitude (Ren & Evans, 2021). Recent work has described the motivation behind solitude preference as; solitude preferring individuals seek it because of the pleasant nature of the experience (Ren & Evans, 2021). Suggesting that the individual's motivation is not negative even though the general perception is that solitude seekers do so because they do not enjoy social interactions or suffer from anxiety. These negative perceptions create the "*paradox of solitude*". Seeking solitude is judged negatively, irrespective of the motivation to seek it (Burger, 1995; Coplan, Ooi, & Baldwin, 2019; Coplan, Bowker, & Nelson, 2021; Ren & Evans, 2021).

2.2. Social evaluation

2.2.1. Social evaluation origin

People evaluate others on the constructs: agency/competence [e.g., competent, intelligent, skilled] and communality/warmth [e.g., caring, supportive, considerate]) (Fiske, Cuddy, & Glick, 2007). Bakan (1956) coined the terms agency and communality as fundamental aspects of the existence of living beings. The origin of social evaluation lies in human survival instincts (Fiske, Cuddy, & Glick, 2007). Agency and communality emerge consistently. However, literature reviews by Fiske, Cuddy & Glick (2007) found that communality is judged before competence and that the judgment of communality has a more considerable impact on behavioral and emotional reactions. They argued that this found difference is logical from the evolutionary perspective. Communality implies one's intent to aid or harm, which in terms of survival is more relevant than the ability to act on these intentions, i.e., agency. In the modern context, people perceived as agentic and communal elicit positive emotions and behavioral reactions. When a lack of agency and or communality is perceived, the perception becomes more negative. People classified as high on one dimension and low on the other are seen as predictable, ambivalent, and emotional in behavioral reactions. Furthermore, the priority for detecting communality over agency is more substantial in women, whose traditional gender roles emphasize communal (warmth) over agentic (competence) traits. Also, these dimensions have been found to relate respectively to masculinity and femininity in terms of perceptual expectations (e.g., Cuddy, Fiske & Glick (2008).

2.2.2. Universality of agency and communality

Research on interpersonal perceptions has, since the mid-20th century, focused on the qualification of agency and communality (Asch, 1946; Cuddy, Fiske, & Glick, 2008). Initially, the dimensions for evaluation were named warmth and coldness. However, the characteristics defined under these terms were limited. Rosenberg et al. (1968) addressed the narrow spectrum and found 64-character traits placed in the dimensions of good-bad intellectual and good-bad social. The two

dimensions resulted in modern conceptualizations of agency and communality, and studies targeting the two dimensions added to the universality of agency and communality (e.g., Chemers, 1997; Fiske, 1980). Work by Wojciszke and colleagues showed that in well-known others, agency and communality account for 82% of the variance in impression (Wojciszke, 1998). Agency and communality also explained the majority of variance in the impressions of work supervisors (Wojciszke, Abele, & Barylan, 2009). To summarize, when people interpret individuals on the spot, agency and communality form basic dimensions that, by themselves, have been found to approximate fully accounting for how people characterize others (consult Wojciszke, 2005a; Wojciszke, 2005b, for a review).

2.3. Solitude and social evaluation

Ren & Evans (2021) have made the first steps towards understanding the relationship between solitude and social evaluation. They found that expressing a preference for solitude leads to an increased perceived agency and decreased perceived communality. However, the social evaluation in Ren & Evans (2021) focused on direct colleagues, and the individuals being evaluated were solely specified in terms of preference for solitude (high vs. low). Will the effect found by Ren & Evans (2021) stand in replication? Regardless of the initial generic context, finding an increase in perceived agency and a decrease in perceived communality may carry significant impacts related to the perceptual and behavioral consequences of social evaluation (Fiske, Cuddy, & Glick, 2007).

Hypothesis 1: When preference for solitude is high (vs. low), targets are evaluated as more agentic but less communal.

2.4. Leader perception

2.4.1. Leadership

Leaders in organizations are commonly evaluated by their superiors instead of their followers. The superiors have relevant decision-making power regarding the leader, so emphasizing evaluations by them is somewhat logical. However, Yukl (2005) defined the success of leaders as: "one's ability to influence followers to reach organizational goals". What superiors see in terms of results is determined mainly by the performance of followers and the leader's ability to have followers perform (Muterera, Hemsworth, Baregheh, & Garcia-Rivera, 2018; Sehgal, Balasubramanian, & Sreejith, 2021). Therefore, leaders are impactful individuals in organizations. "Good" leadership leads to better performance and employee well-being, whereas "bad" leadership can be fatal to firm performance and can cause considerable damage to employee well-being (Yukl, 2005). However, leadership is dependent on perceptions. How people evaluate their leaders can make or break the impact of leaders (Baril, Mahar-Potter, & Reavy, 1989; Eagly & Karau, 2002; van Knippenberg & van Knippenberg, 2005; Powell & Butterfield, 1979). The issues carrying the most weight are characteristics associated with leaders, leadership style, and diversity in leadership (Bass & Stogdill, 1990).

Leadership perception theory suggests the necessity of managing leadership perceptions through attitudes (i.e., subjective assessments of an object in terms of the degree of it being favorable or unfavorable (e.g., Eagly & Chaiken, 1993)) towards leaders to ensure leader effectiveness and success (Lee et al., 2015). The theory stipulates that the perception of a leader is formed through attitudes that impact evaluations by followers and behaviors towards leaders (Lee et al., 2015; Lord, Foti, & De Vader, 1984). The review paper by Lee et al. (2015) on leader perception showed that the standard way of evaluating leadership is based on a leader-centric approach (i.e., the measures of leadership accurately reflect the impact of the leader's preferences, behaviors, actions, and tendencies). They also elaborated on bodies of research that have shown

that the perception of a leader is partly dependent on the attitudes of the individual in evaluating the leaders in question and the specific preferences, behaviors, actions, and tendencies that the leader expresses (e.g., Sin et al., 2009; Hansbrough, Lord, & Schyns, 2014). As leadership perception theorists, Lee et al. (2015) argued the need to include the perceiver's attitude in the measures of leader perception (i.e., follower-centric).

Furthermore, it was argued that existing measures of leader perception were not suitable for the follower-centric approach, and they suggested further development of such measures along the lines of agency and communality within social cognition or social evaluation (Lee et al., 2015). Sczesny & Kuhnen (2004) conducted a study in which they assessed target leadership potential by presenting a profile to which participants had to scale leadership characteristics (e.g., ability to cope with pressure, assertiveness, and authority). Sczesny & Kuhnen (2004) and prior research (e.g., Weinert, 1990) confirmed the predictive ability of these measures for leadership success through the assessment of specific stimuli.

Hypothesis 2: Perceived agency and perceived communality mediate the relationship between preference for solitude and perceived leadership potential.

2.4.2. *Leader stereotypes*

Through stereotyping, humans attempt to explain the world around them. We are not able to process all information that we receive on a daily base, so we generalize to cope (Fiske, 1998). This cognitive process of generalization can be defined as "beliefs about individuals regarding their characteristics, attributes, and behaviors based on their membership of a certain group" (Hilton & van Hippiel, 1996). To further understand the role of solitude expression in evaluating leaders, we address stereotyping theories concerning social evaluation regarding leadership.

Leaders are subject to leadership gender stereotyping, where in general, leaders and men are expected to align with agentic traits and women with communal traits (Fiske, Cuddy, & Glick, 2007; Koenig, Eagly, Mitchell, & Ristikari, 2011). This results in a situation where women in

leadership positions must align with agentic and communal traits (Fiske, Cuddy, & Glick, 2007). On paper, traditional women are stereotypically warm but incompetent, whereas professional women are allegedly competent but cold (Fiske, Cuddy, & Glick, 2007; Cuddy, Fiske, & Glick, 2008).

The relationship between the concept's agency, communality, and gender has been partly defined within solitude and social evaluation theories. Agency is seen as the masculine construct and communality as the feminine one (Fiske, Cuddy, & Glick, 2007). However, solitude theorists have defined solitude preference as more impactful on male traits [e.g., assertion, dominance] and thus the perception of men (Coplan, Ooi, & Baldwin, 2019). In social evaluation theory, seeking solitude has been linked to female traits [e.g., sociability, caring] (Fiske, Cuddy, & Glick, 2007). In both cases, preferring solitude is seen as a negative factor regarding social evaluation. In other words, seeking solitude is socially unacceptable for men and or women. Bowker et al. (2020) found results that add to the confusion. They showed that seeking solitude was slightly more unacceptable for men than women, but more importantly, they showed that the overall perception of solitude seeking was not necessarily negative. Positive even. There is a lack of consensus on the impact of solitude preference on agency and communality and whether we view solitude-seeking people in an inherently negative light nowadays.

By addressing the lack of consensus, we challenge the paradox assumption that solitude is evaluated negatively (Burger, 1995; Coplan, Ooi, & Baldwin, 2019; Coplan, Bowker, & Nelson, 2021; Ren & Evans, 2021). Ren and Evans (2021) and Bowker et al. (2020) provided first indications of positive evaluations. Furthermore, gender has been studied as the critical differentiating factor where effects between males and females are assumed to be opposites. Fiske (2010) confirmed that most research concerning gender (male vs. female) is highly susceptible to stigma. "I hate them and love us" is a short-sighted perception of the complex relations between

human gender and stereotypical perceptions. By going beyond the dichotomy of us versus them (male vs. female), we can establish a more balanced understanding of specific stereotypes.

Doing so is relevant for all leaders in a practical sense. Acceptability of expressing a preference for solitude may impact the perception of a leader. Such perceptions have an impact on the reactions of followers, which partly determine leader success. Defining how the relationship functions can enable theorists and practitioners to target solitude preference to understand the effects further and to aid leaders in coping with potential negative effects or benefiting from positive ones (Baril, Mahar-Potter, & Reavy, 1989; Eagly & Karau, 2002; van Knippenberg & van Knippenberg, 2005; Powell & Butterfield, 1979)

Hypothesis 3: Leader gender impacts the relationships between solitude expression (high vs. low) and perceived agency, and between solitude expression (high vs. low) and perceived communality.

2.4.3. Behavior towards leaders through the Stereotype content model and BIAS map

Fiske, Cuddy, Glick, and Xu (2002) introduced the Stereotype content model as a mean to define and understand specific stereotypes. It uses the communality dimension to measure the perceived intention of others, whether they are friendly or dangerous, based on the evolutionary nature of the construct. The result is warm (friendly) or cold (dangerous). So, the more friendly/dangerous a person seems, the more warmth/cold that individual perceives. The dimension of agency measures the ability of others to conduct their intentions. The result is competent (able) or incompetent (in-able). The more able/in-able someone is perceived on their intentions, the more competent/incompetent that individual seems. The results have been clustered into four categories. High-warmth/high-competence, low-warmth/high-competence, low-warmth/low-competence, High-warmth/low-competence. These clusters link to impressions of an individual, but they are cognitive. These impressions become affect when a group's cognitive impression is applied to a specific individual and vice versa.

To understand the attitudinal and behavioral implications of stereotypes, Cuddy, Fiske, and Glick (2007) developed the BIAS map, which uses the parameters of warmth and competence of the stereotype content model to assess affect due to the application of a stereotype on an individual and behavioral intentions motivated by the affect. This implies that affect and behavioral intentions are shaped through perceived agency and communality. The application of stereotypes is qualified as a form of prejudice which in turn is used to mediate intended behaviors with a potential discriminatory nature (negative and positive). Warmth and competence cause complex feelings. For example, perceptions of high competence but low warmth elicit envy. Perceptions of low competence but high warmth elicit pity (Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008; Fiske S., Cuddy, Glick, & Xu, 2002). Combining the Stereotype content model and BIAS map allows us to define, assess, and understand perceptions, attitudes, and behaviors towards specific groups. Thus, allowing us to investigate the process between the social evaluation of solitude preference to attitudes and behavior. In doing so, we go beyond Ren & Evans (2021), where a one-dimensional behavior (intent to ostracize) was found. The original BIAS map was used to define behavioral intentions towards demographic groups of people (e.g., elderly, Hispanics, Christians). The spectrum of behavioral intentions, as well as the stereotype content model, towards these groups, used survey items asking, for example, how likely it would be for an individual, in general, to physically attack the target group (Cuddy, Fiske, and Glick, 2007). In a discriminatory context that targets racism, this is a logical question. However, the suitability of several items has been questioned in terms of applicability to other contexts, such as perception of animals or environments (Sevillano & Fiske, 2019; Strinić, Carlsson, & Agerström, 2021). The example of attack has been presented as killing in an animal context. Following Sevillano & Fiske (2019) and Strinić, Carlsson, & Agerström (2021), we will adapt the used items to leadership at work context. Groups scoring higher on agency and lower on communality were found to be subjected to more harmful behaviors, whereas groups scoring higher on communality and lower

on agency were subjected to more facilitative behaviors (Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008; Fiske S., Cuddy, Glick, & Xu, 2002).

Hypothesis 4: Leaders expressing a high (vs. low) preference for solitude are subject to less intended facilitative behaviors and more intended harmful behaviors.

Hypothesis 5: The relationship between leaders expressing a high (vs. low) preference for solitude and intended behaviors is mediated by agency and communality.

2.4.4. Social identity and similarity attraction

Social identity theory stipulates that we tend to exaggerate the differences and similarities of groups and individuals belonging to specific groups. We use personal attributes, such as gender and preferences, to categorize the self and others into in-group and out-group members (Tajfel & Turner, 1986; Turner, 1982). People favor interactions with similar others who reinforce one's identity and provide a source of affirmation and self-esteem enhancement through their similarities (Byrne, 1971). Studies have confirmed the train of thought in social identity theory that people evaluate others from an in-group more favorably than out-groups (e.g., Montoya & Horton, 2013). Leader gender is the focus of hypothesis 3. Through presenting the gender of a leader, in-group and out-group effects may occur concerning the perceiver's gender. Furthermore, the studies assess the expression of a preference for solitude which may also generate an in-group and out-group effect between the presented preference and the perceiver's preference for solitude (Byrne, 1971; Tajfel & Turner, 1986; Turner, 1982). Testing potential in-group and out-group effects may provide further insights into the relationship between solitude preference, social evaluation, and behavioral consequences through the follower-centric approach to leadership perception (Lee et al., 2015).

Hypothesis 6: The mediated relationship between leaders expressing a high (vs. low) preference for solitude and intended behaviors is moderated by perceiver gender and perceiver

preference for solitude, such that similar others evaluate each other more positively and dissimilar others more negatively.

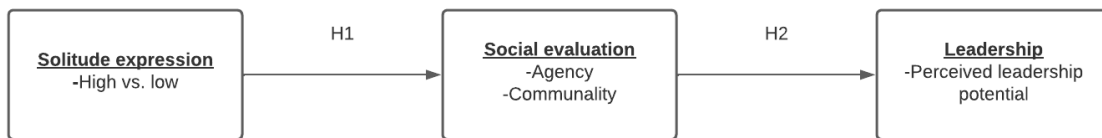


Figure 1

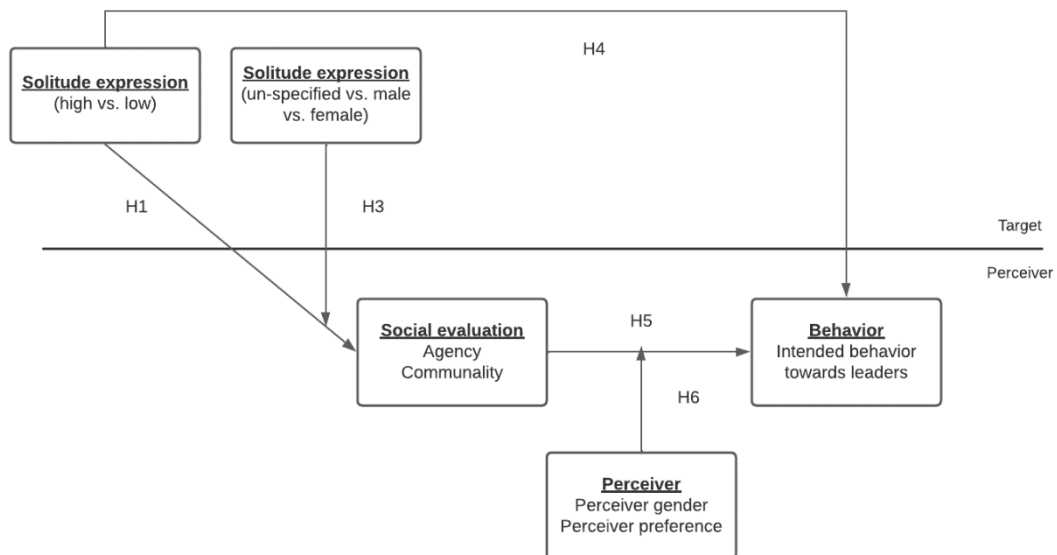


Figure 2

2.5. Current research

We conducted two studies to examine whether individuals and leaders who prefer solitude are socially evaluated as more agentic and less communal. Below a table specifying which hypothesis was tested in which study can be found. First, we assessed the impact of expressing a preference for solitude by presenting fictional targets with either a high or low preference for solitude. Preferences were presented by displaying a completed survey on preference for solitude,

and participants were asked to rate the target on scales for agency and communality (Ren & Evans, 2021). Furthermore, the target's perceptions were assessed by estimating the perceived leadership potential (Sczesny & Kuhnen, 2004). Second, we assessed the impact of expressing a preference for solitude by presenting a fictional leader with either a high or low preference for solitude. Then we measured how leaders are evaluated with specified genders when expressing a preference for solitude, followed by the measurement of behavioral intentions towards the specified leader. Lastly, impacts of perceiver characteristics were tested. Table 1 shows the hypothesis overview.

Hypotheses overview

		Study 1	Study 2
<i>Hypothesis 1</i>	When preference for solitude is high (vs. low), targets are evaluated as more agentic but less communal.	X	X
<i>Hypothesis 2</i>	Perceived agency and perceived communality mediate the relationship between preference for solitude and perceived leadership potential	X	
<i>Hypothesis 3</i>	Leader gender impacts the relationships between solitude expression (high vs. low) and perceived agency; and between solitude expression (high vs. low) and perceived communality.		X
<i>Hypothesis 4</i>	Leaders expressing a high (vs. low) preferences for solitude are subject to less intended facilitative behaviors and more intended harmful behaviors.		X
<i>Hypothesis 5</i>	The relationship between leaders expressing a high (vs. low) preferences for solitude and intended behaviors is mediated by agency and communality.		X
<i>Hypothesis 6</i>	The mediated relationship between leaders expressing a high (vs. low) preferences for solitude and intended behaviors is moderated by perceiver gender and perceiver preference for solitude, such that similar others evaluate each other more positively and dissimilar others more negatively.		X

Table 1

3. Study 1

3.1. Method

Participants

Bachelor of Business Administration Students at the Rotterdam School of Management in the Netherlands participated in this study for course credits. A power analysis determined our sample size. To detect a weak to medium effect (Cohen's $d = 0.3$, 90% power, $\alpha = .05$, two-tailed test), we would need 266 participants (Field, 2017). Anticipating data exclusions due to missing values or failed attention checks, we attempted to recruit at least 300 participants.

Following the standard data collection procedure at the university, we collected data for two months, and 269 students completed the study. Fourteen participants were excluded from the analyses for either failing attention-check items or containing missing data on the dependent or independent variable. The final sample consisted of 255 participants (128 female, 127 male, M-age= 19.02 years, SD= 1.36).

Procedure and materials

Participants completed the study in a lab setting. Participants received a copy of a completed preference for solitude scale (high vs. low). Participants were randomly assigned to either the high or low group. They were instructed to read the description and evaluate the presented profile. Then participants were asked to form an impression about the presented individual. The target profiles were derived from the Ren & Evans (2021) study. Participants then answered questions about social evaluation, perceived leadership potential, and demographics.

Social evaluation

We measured social evaluation in terms of agency ($\alpha = .75$) and communality ($\alpha = .81$) using three items each (e.g., "Considering how the presented leader is viewed in general. To what extent would the following traits be considered to apply? Skilled or Caring"). The order of the measures was randomized for each participant (Fiske S., Cuddy, Glick, & Xu, 2002; Cuddy, Fiske, & Glick, 2007). All items were rated on the same 7-point scale (1 = not at all, 7 = very much so) (Heilman & Okimoto, 2007).

Perceived leadership potential

We used Sczesny & Kuhnen's (2004) assessment of leadership to form the leadership potential scale (e.g., "able to cope with pressure", "assertive, possessing authority"; $\alpha = .80$). All items were rated on the same 5-point scale (1 = not at all, 5 = very much).

Controls

Research has shown that age, gender, and perceiver preference have an impact on social evaluation (Fiske, Cuddy, & Glick, 2007; Sumter, Bokhorst, Miers, Van Pelt, & Westenberg, 2010; Koenig, Eagly, Mitchell, & Ristikari, 2011; Cassidy, Shih, & Gutchess, 2012; Ren & Evans, 2021). Therefore, they were controlled.

3.2. Results

3.2.1. Descriptive statistics

The means, standard deviations, and correlations for the variables are reported in Table 2.

Means, standard deviations, and correlations								
Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Target preference	.46	.49						
2. Gender	.50	.50	.2					
3. Perceiver preference	2.78	.59	-.04	-.07				
4. Agency	4.74	.84	.28**	.10	-.06*			
5. Communality	4.59	1.18	-.56**	.07	.09	.1		
6. Leadership	3.11	.61	-.25**	.18**	.03	.36**	.34**	
7. Age	19.02	1.36	-.05	-.08	.13*	.1	.1*	.05

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

The descriptive statistics show that, as expected, there are strong relationships between a target's preference for solitude (experimental condition) and perceived agency ($r = .28$) and communality ($r = -.56$). Moreover, the relationships are both in the expected directions, which is an important first indication of Ren & Evans's (2021) proposed relationship between solitude and social evaluation. The descriptive statistics further indicate that the sample perceived agency ($M = 4.74$, $SD = .84$) and communality ($M = 4.59$, $SD = 1.18$) at moderate to high levels. Furthermore, low to moderate levels perceiver preference for solitude ($M = 2.78$, $SD = .59$) and moderate levels of perceived leadership potential ($M = 3.11$, $SD = .61$) have been detected. Control variables must be selected based on theoretical justification and empirical relationships with a focal. Theory has suggested relationships between age, gender, perceiver preference, and the focal variables. In the sample, age is related to communality ($r = .1$), gender to leadership ($r = .18$), and perceiver preference to agency ($r = -.06$). These findings imply that the variable should be held constant

(Fiske, Cuddy, & Glick, 2007; Sumter, Bokhorst, Miers, Van Pelt, & Westenberg, 2010; Koenig, Eagly, Mitchell, & Ristikari, 2011; Cassidy, Shih, & Gutchess, 2012; Bernerth & Aguinis, 2016; Ren & Evans, 2021).

3.2.2. Test of hypothesis 1

In hypothesis 1, we proposed that individuals subjected to an expression of a high (vs. low) preference for solitude will perceive a target individual as more agentic and less communal. To test the hypothesized difference, independent sample t-tests were used. No control variable was introduced since it does not apply to t-tests because we cannot infer a causal relationship from the results (Field, 2017). There was significant a difference in the results between the groups low ($M = 4.52$, $SD = .83$) and high ($M = 5$, $SD = .79$) for perceived agency $t(253) = -4.70$, $p < .001$, Cohen's $d = .81$. For perceived communality, equality of variance was violated. Differences between the groups low ($M = 5.2$, $SD = .81$) and high ($M = 3.87$, $SD = 1.14$) for perceived communality $t(253) = 10.53$, $p < .001$, Cohen's $d = .98$. Thus, supporting hypothesis 1. Results are presented in tables 3 and 4.

t-test Results Comparing High and Low on Perceived Agency.

	N	M	SD	SE	<i>p</i>	95% Confidence Interval		Cohen's <i>d</i>
						Lower	Upper	
Low	138	4.52	.83	.07	<.001	-.68	-.28	.81
High	117	5	.79	.08				

* Levene's test is not significant ($p > .05$), thus not violating the assumption of equal variances.

Table 3

t-test Results Comparing High and Low on Perceived Communality.

	N	M	SD	SE	<i>p</i>	95% Confidence Interval		Cohen's <i>d</i>
						Lower	Upper	
Low	138	5.2	.81	.07	<.001	1.08	1.58	.98
High	117	3.87	1.14	.11				

* Levene's test is not significant ($p > .05$), thus not violating the assumption of equal variances.

Table 4

3.2.3. Test of hypothesis 2

Hypothesis 2 proposed an indirect relationship between expressing a preference for solitude and perceived leadership potential through agency and communality. To test the hypothesis, PROCESS model 4 was used (Hayes, 2021). Results showed a statistically significant

negative conditional direct effect ($p < .001$) of target solitude preference (high vs. low) on perceived leadership potential at $B = -.36 (.08)$. Conditional positive indirect effect through agency were found with $ab = .15 (.03)$ which the 95 % BootCI excluded zero (.08 to .22). Through communality negative conditional indirect effect was found at $ab = -.08 (.04)$ with 95 % BootCI excluding zero (-.33 to -.07). Results indicate that target preference for solitude increases perceived agency which in turn increases perceived leadership potential. Communality is decreased by target preference for solitude which subsequently decreases perceived leadership potential. Beyond the mediating effect of agency, results have shown a form of competitive (vs. complementary) mediation where the direct and indirect effects are opposite in signs (positive vs. negative). Results show mediating effects of agency and communality. Adjusted $R^2 = .29$. After controlling for age, gender, and perceiver preference the mediations remained nearly identical ($ab = .14 (.03)$; $ab = -.07 (.04)$) (95 % BootCI, .08 to .22; -.33 to -.06) Gender was the only control variable ($B = .16, p = .01$). Hypothesis 2 is supported. Mediation results are presented in table 5, regression results in appendix 3.

Results of mediation analysis (Hayes, 2018)

	Path	Coefficient	SE	t	LLCI	ULCI
Perceived leadership potential	Agency a	.48***	.1	4.77	.28	.68
	b	.30***	.04	7.07	.22	.39
	c	-.30***	.07	-4.19	-.45	-.16
	c'	-.37***	.08	-4.36	-.55	-.2
	a*b	.14	.03		.08	.22
	Communality a	-1.31***	.12	-10.79	-1.55	-1.07
	b	-.79**	.03	-5.6	-.49	-.15
	c	-.30***	.07	-4.19	-.45	-.16
	c'	-.37***	.08	-4.36	-.55	-.2
	a*b	-.07	.04		-.33	-.06

* $p < .05$. ** $p < .01$. *** $p < .001$

Adjusted $R^2 = .29$ ***

a = independent variable (IV) to mediator (M);

b = mediator to dependent variable (DV);

c = total effect;

c' = independent variable to dependent variable;

a*b = independent variable to dependent variable through mediator.

Table 5

3.3. Discussion

The study has shown that individuals who seek solitude are socially evaluated as more agentic and less communal. This conclusion is based on the mean differences between the groups (high vs. low) using the evaluation of agency and communality. These findings align with findings from Ren & Evans (2021). However, the provided context was generic in both the analyzed data and Ren & Evans (2021). Attempting to understand further if the effects hold in other contexts seems necessary, as suggested by Ren & Evans (2021).

Mediation analysis established that the effect of target solitude preference carries over to perceived leadership potential and that this relationship with agency and communality as mediators is moderated by perceiver preference for solitude. This confirms the findings from Sczesny & Kuhnen (2004) that specific stimuli or behaviors impact the perception of leaders.

4. Study 2

4.1. Method

Participants

Prolific members from the United Kingdom participated in the study for remuneration of £1.50. A power analysis determined our sample size. To detect a weak to medium effect ($F = 0.25$, 90% power, $\alpha = .05$, two-tailed test), we would need 238 participants (Field, 2017). Anticipating data exclusions due to missing values or failed attention checks, we attempted to recruit at least 300 participants. Following the standard data collection procedure at the university, we collected data for two days, and 301 participants completed the study. Fourteen participants were excluded from the analyses for either failing attention-check items or containing missing data on the dependent or independent variable. The final sample consisted of 287 participants (206 female, 80 male, M -age = 30.29 years, $SD = 5.46$, range 19-35).

Procedure and materials

Participants completed the study in a lab setting. Participants received a copy of a completed preference for solitude scale (high vs. low). A 2x3 design was used for the experiment resulting in 6 groups to which participants were randomly assigned. Each group was assigned a preference for solitude (high vs. low) and a leader gender specification through naming the leader (un-specified, Emily, Greg) (Rothbard et al., 2020). Leadership context was created through the explanation of the situation (Findor, Láštíková, Hruška, Popper, & Váradi, 2020). Participants were instructed to read the description and evaluate the presented profile. Then they were asked to form an impression about the presented leader based on the provided information and relate that to the general perception in society to avoid social desirability bias (Cuddy, Fiske, & Glick, 2007; Ren & Evans, 2021). The target profiles were derived from the Ren & Evans (2021) study. Participants then answered questions about social evaluation, intended behaviors, and demographics.

Social evaluation

All items were rated on the same 7-point scale (1 = not at all, 7 = very much so) (Heilman & Okimoto, 2007). We measured social evaluation related to stereotyping in terms of agency ($\alpha = .89$) and communality ($\alpha = .82$) using three items each (e.g., "Considering how the presented leader is viewed in general. To what extent would the following traits be considered to apply? Skilled or Caring"). The order of the measures was randomized for each participant (Fiske S., Cuddy, Glick, & Xu, 2002; Cuddy, Fiske, & Glick, 2007).

Intended behavior towards the leader

We used Cuddy, Fiske, and Glick's (2007) assessment of intended behaviors to form the scales. Participants were asked to rate the items on a 5-point Likert scale (1 = not at all; 5 = extremely). Categories of behaviors from the BIAS map were measured on four-item scales; facilitation ($\alpha = .82$), and harm ($\alpha = .76$), based on the question; "Considering how the presented

leader is viewed in society. To what extent do people tend to behave in the following ways towards the leader?". The original BIAS map distinguishes between passive and active intended behaviors, but for this analysis, only facilitation and harm were assessed (Cuddy, Fiske, and Glick, 2007).

Moderators

Moderating variables were measured to understand potential in-group and out-group effects between genders and individual preferences for solitude (Lee et al., 2015). Gender was dummy coded for (0 = Female, 1 = Male). The preference for solitude scale ($\alpha = .93$) was derived from study 1 and Ren & Evans (2021).

Controls

Research has shown that age impacts social evaluation (Sumter, Bokhorst, Miers, Van Pelt, & Westenberg, 2010; Cassidy, Shih, & Gutchess, 2012). Therefore, age was added as a control variable.

4.2. Results

4.2.1. Descriptive statistics

The means, standard deviations, and correlations for the variables have been reported in table 6.

Means, standard deviations, and correlations									
Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Target preference	3.74	1.73							
2. Gender	.72	.45	.06						
3. Perceiver preference	3.81	.74	-.08	.06					
4. Agency	4.79	.78	.19**	.23	.13*				
5. Communality	4.46	1.07	-.42**	.22	.1	.22*			
6. Facilitation	3.25	.72	-.51**	.01	.15**	.19**	.63**		
7. Harm	2.43	.71	.34**	.01	-.04	-.2**	-.45**	-.51**	
8. Age	30.29	5.46	.03	-.01	.08*	-.01	.05*	.01	.06

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Descriptive statistics show that there are strong relationships between a leader's preference for solitude (experimental condition) and perceived agency ($r = .19$), and communality ($r = -.42$). Descriptive statistics further indicate that the sample perceived agency ($M = 4.79$, $SD = .78$) and communality ($M = 4.46$, $SD = 1.07$) at moderate to high levels, which also aligns with previous

findings. Furthermore, moderate levels of perceiver preference for solitude ($M = 3.81$, $SD = .74$) have been detected, which is higher than in the previous study. Control variables must be selected based on theoretical justification and empirical relationships with a focal variable. Theory has suggested relationships between age and several focal variables. In the sample, age is only related to perceiver preference for solitude ($r = .08$) and communality ($r = .05$), which implies that age should be held constant during the hypothesis testing variable (Bernierth & Aguinis, 2016).

4.2.2. Test of hypotheses 1 & 3

In hypothesis 1, we proposed that targets who express a high (vs. low) preference for solitude will be perceived as more agentic and less communal. In hypothesis 3, we proposed that the effect of leader solitude preference is impacted by leader gender when it is specified. One-way MANCOVA and planned contrast analysis were used, respectively (Field, 2017).

One-way ANOVA showed a not statistically different from zero result, $F(5, 280) = 2.02$, $p = .08$, indicating that the level of age was constant across the measurement categories. Therefore, the variable can be included in the model as covariate. The effect of target preference for solitude on perceived agency remained statistically significant, $\Lambda = .64$, $F(10, 556) = 13.51$, $p < .001$, $\eta^2 = .2$. (table 7) (Wilks's statistic is used since it is not affected by unequal group sizes (Field, 2017, p. 754)). Indicating a significant effect of target preference for solitude on perceived agency and communality. Age itself was not significantly related to the perceived agency of targets, $\Lambda = .99$, $F(2, 278) = .21$, $p = .81$, $\eta^2 = .01$. Between subjects' effects showed that target preference for solitude had statistically significant effects on both agency ($F(5, 280) = 2.98$, $p = .12$, $\eta^2 = .05$, adjusted $R^2 = .03$) and communality ($F(5, 280) = 17.7$, $p < .001$, $\eta^2 = .24$, adjusted $R^2 = .03$). After adjusting the rejection region for multiple ANOVAs by Bonferroni correction the results remained significant ($p < .025$) (Lesack & Naugler, 2011). Planned contrast (table 8) analysis revealed that high (vs. low) preference for solitude in leaders increased perceived agency, $t(280) = 3.54$, $p < .001$ and decreased perceived communality, $t(280) = -9.24$, $p < .001$. These results

are in support of hypothesis 1 in a leadership context. Further contrast analysis assessed the differences between the groups in their respective high or low category to assess differences between leader genders. Gendered leaders compared to ungendered leaders did not show significant differences in agency in either the high or low groups; $t(280) = .04, p = .45$; $t(280) = -.1, p = .36$. No effect was found in communality either; $t(280) = -.06, p = .35$; $t(280) = .06, p = .58$. Also, contrasts of male and female leaders did not show significant differences in agency $t(280) = .01, p = .81$; $t(280) = .01, p = .85$, or communality $t(280) = .03, p = .6$; $t(280) = .11, p = .22$. None of the comparisons yielded significant results. Hypothesis 3 was not supported.

One-way MANCOVA, agency - communality

		Λ	Df	Error df	F	η^2
Wilks's statistic		.64	10	556	13.51***	.2
	Dependent variable	Type III Sum Sq	Df	Mean Sq	F	η^2
Corrected model	Agency	8.73	6	1.46	2.49*	.05
	Communality	78.88	6	13.15	14.76***	.24
Age	Agency	.02	1	.02	.04	.01
	Communality	.37	1	.37	.04	.01
Target preference	Agency	8.7	5	1.74	2.98*	.05
	Communality	78.81	5	15.76	17.7***	.24

* $p < .05$. ** $p < .01$ *** $p < .001$

Box's tests is not significant ($p > .05$), thus not violating the assumption of equality of covariance

$R^2 = .05$ (Adjusted $R^2 = .03$)

$R^2 = .24$ (Adjusted $R^2 = .23$)

Table 7

Planned contrast, agency - communality

	Contrast	Coefficient	SE	t	p
Agency					
1	-1, -1, -1, 1, 1, 1	.16	.05	3.55***	<.001
2	0, 0, 0, -2, 1, 1	.04	.05	.23	.45
3	-2, 1, 1, 0, 0, 0	-.1	.08	.75	.36
4	0, 0, 0, 0, -1, 1	.01	.05	-.15	.81
5	0, -1, 1, 0, 0, 0	.01	.07	-1.20	.85
Communality					
1	-1, -1, -1, 1, 1, 1	-.52	.06	-9.24***	<.001
2	0, 0, 0, -2, 1, 1	-.06	.06	.52	.35
3	-2, 1, 1, 0, 0, 0	.06	.1	-.93	.58
4	0, 0, 0, 0, -1, 1	.03	.06	-1.15	.6
5	0, -1, 1, 0, 0, 0	.11	.09	.54	.22

Levene's test is not significant ($p > .05$), thus not violating the assumption of equal variances.

* $p < .05$. ** $p < .01$ *** $p < .001$

Table 8

4.2.3. Test of hypothesis 4

In hypothesis 4 we proposed that leader who express a high (vs. low) preference for solitude will be subjected to less intended facilitative and more harmful intended behaviors. One-way MANCOVA and planned contrast analysis were used. Sample results for the one-way ANOVA of age are the same as for hypothesis 4; $F(5, 280) = 2.02, p = .08$. Box's test for equality of the covariance matrices was significant ($p > .05$). Thus, violating the assumption. Pillai's trace was used as multivariate tests statistic, since it robust to the violation (Field, 2017, p. 754). Results (table 9) showed statistical significance $V = .36, F(10, 558) = 12.27, p < .001, \eta^2 = .11$. Age showed no statistical significance $V = .01, F(4, 276) = 1.17, p < .001, \eta^2 = .01$. Between subjects' effects showed that target preference for solitude had statistically significant effects on facilitation ($F(5, 280) = 29.14, p < .001, \eta^2 = .34, \text{adjusted } R^2 = .32$) and harm ($F(5, 280) = 9.69, p = .01, \eta^2 = .14, \text{adjusted } R^2 = .13$). Results remained significant ($p < .025$) after adjusting the regions for multiple ANOVAs (Lesack & Naugler, 2011). Planned contrast (table 10) revealed that high (vs. low) preference for solitude in leaders increased harm ($t(280) = 6.5, p = < .001$) and decreased facilitation ($t(280) = -11.71, p = < .001$). Results show that harmful intended behaviors are increased when preference for solitude is high (vs. low) and that facilitative behaviors are decreased. Thus, supporting hypothesis 4.

One-way MANCOVA, agency - communality						
		V	Df	Error df	F	η^2
Pillai's trace		.36	10	558	12.27***	.18
Dependent variable		Type III Sum Sq	Df	Mean Sq	F	η^2
Corrected model	Facilitation	31.14	5	6.22	14.96***	.21
	Harm	8.17	5	1.64	3.16**	.05
Age	Facilitation	.02	1	.02	.04	0
	Harm	2.07	1	2.07	4.06*	.01
Target preference	Facilitation	31.14	5	6.22	14.96***	.21
	Harm	8.17	5	1.64	3.17**	.05

* $p < .05$. ** $p < .01$ *** $p < .001$

Box's tests is significant ($p > .05$), thus violating the assumption of equality of covariance

Adjusted $R^2 = .32$ ***

Adjusted $R^2 = .13$ ***

Table 9

Planned contrast, facilitation - harm					
	Contrast	B	SE	t	p
Facilitation					
1	-1, -1, -1, 1, 1, 1	-.41	.04	-11.71***	<.001
Harm					
1	-1, -1, -1, 1, 1, 1	.26	.04	6.54***	<.001

Levene's test is not significant ($p < .05$), thus violating the assumption of equal variances.
 $*p < .05$. $**p < .01$ $***p < .001$

Table 10

4.2.4. Test of hypotheses 5 & 6

Hypothesis 5 proposed a mediation effect of leader solitude preference through agency and communality on facilitation and harm. Hypothesis 6 proposed that this relationship was moderated. To test the moderated mediation effect, SPSS PROCESS Model 7 was used (Hayes 2021). Since the model's independent variable was categorical, the inference process deviated from when the independent variable would have been continuous or dichotomous. To infer a relative effect, at least one must be statistically significant based on the bootstrapped confidence intervals. Moderated mediation can be inferred based on the moderated mediation index along with the same logic (Hayes, 2021, p. 206). Moderated mediation results can be found in table 11, regression results in appendix 2.

Results for facilitation showed that target preference for solitude (high vs. low) had a statistically significant ($p < .001$) negative relative direct effects on facilitation between $B = -.77$ (.11) to $B = -.22$ (.11). Positive relative conditional indirect effects through agency, at values of the moderator gender, were found at $ab = .04$ (.03). Values at perceiver preference for solitude, ranged from $ab = .01$ (.02) to $ab = .08$ (.04). 95 % BootCI excluded zero in both cases (.01 to .11; .01 to .18). Moderated mediation indexes showed 95 % BootCI including zero for gender (-.15 to .26) and excluding zero for perceiver preference (.01 to .27) (index = .05 (.03) to index = .06 (.03)). With communality as mediator at values of gender, $ab = -.38$ (.09) to $ab = -.22$ (.08). At values of perceiver preference for solitude, $ab = -.45$ (.09) to $ab = -.14$ (.06) and 95 % BootCI excluded zero (-.58 to -.13; -.62 to -.02) at mean and higher levels of the moderator. Moderated mediation confidence intervals included zero for gender (-.15 to .26) and for perceiver preference

for solitude excluded zero (-.15 to .26) at lower and mean levels of the moderator with indexes between index = .12 (.07) and index = .20 (.06). Confidence intervals excluded zero (.01 to .34). Age showed no statistical significance ($p > .05$) with $B = .01$ (.01). Adjusted $R^2 = .51$ in both models.

Results for harm showed that target preference for solitude (high vs. low) had several statistically significant ($p < .001$) positive relative conditional direct effects, on harm from $B = .02$ (.13) to $B = .38$ (.13). Negative relative conditional indirect effects through agency, at values of the moderator gender, were found at $ab = -.05$ (.03) and at values of the moderator perceiver preference for solitude, ranged from $ab = -.04$ (.02) to $ab = -.09$ (.05). 95 % BootCI excluded zero in both cases (-.12 to -.01; -.19 to -.01). Moderated mediation indexes showed 95 % BootCI which included zero for gender (-.17 to .1) and which excluded zero for perceiver preference for solitude (-.17 to -.01) with index at index = $-.07$ (.04). With communality as mediator at values of gender, $ab = .20$ (.07) to $ab = .26$ (.07) and at values of perceiver preference for solitude, $ab = .1$ (.04) to $ab = .32$ (.09) and 95 % BootCI excluded zero (.03 to .36; .01 to .20) at mean and higher levels of the moderator. Confidence intervals included zero (-.14 to .26) and perceiver preference for solitude confidence intervals (-.27 to -.01) excluded zero at all levels of the moderator with indexes between index = $-.14$ (.5) and index = $-.09$ (.05). Age showed no statistical significance ($p > .05$) with $B = .01$ (.01). Adjusted $R^2 = .26$ and Adjusted $R^2 = .27$.

Mediation was through agency and communality. Hypothesis 5 is supported. Beyond the mediating effects. Results have shown a form of competitive (vs. complementary) mediation for both outcome variables. The direct and indirect effects are opposite in signs (positive vs. negative). Only perceiver preference moderated the mediation so hypothesis 6 is partly supported.

Results of moderated mediation analysis (Hayes, 2018))

		Gender										Preference											
		Agency					Community					Agency					Community						
Group	Path	95% confidence interval					95% confidence interval					95% confidence interval					95% confidence interval						
		Coefficient	SE	t	LLCI	ULCI	Coefficient	SE	t	LLCI	ULCI	Coefficient	SE	t	LLCI	ULCI	Coefficient	SE	t	LLCI	ULCI		
Facilitation AG, CO PG, PP	m_low																						
	a	.03	.33	.11	-.61	.69	-.63	.4	-1.56	-1.44	.16	.03	.33	.11	-.61	.69	-.63	.4	-1.56	-1.44	.16		
	b	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34		
	c'	-.22*	.11	-1.97	-.44	-.01	-.22*	.11	-1.97	-.44	-.01	-.22*	.11	-1.97	-.44	-.01	-.22*	.11	-1.97	-.44	-.01		
	a*b																						
	Male	.01	.04	-.08	.1	.1	-.17	.11	-.41	.02	.02												
	Female	.02	.02	-.01	.08	.08	-.03	.06	-.16	.09	.09												
	-1SD											-.02	.03	-.1	.01	.01	-.23	.08	-.41	-.07	-.07		
	Mean											.01	.02	-.02	.05	.05	-.08	.05	-.19	.01	.01		
	+1SD											.05	.03	.01	.13	.13	-.05	.07	-.07	.2	.2		
	mm	.02	.04	-.07	.12	.12	.14	.12	-.01	.4	.4	.05	.03	.01	.13	.13	.19	.07	.05	.35	.35		
	f_low																						
	a	-.2	.29	-.71	-.78	.36	-.27	.35	-.77	-.98	.42	-.2	.29	-.71	-.78	.36	-.27	.35	-.77	-.98	.42		
	b	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34		
	c'	-.20	.11	-1.81	-.42	.01	-.20	.11	-1.81	-.42	.01	-.20	.11	-1.81	-.42	.01	-.20	.11	-1.81	-.42	.01		
a*b																							
Male	-.02	.03	-.09	.03	.03	-.07	.09	-.28	.09	.09													
Female	.01	.02	-.03	.06	.06	-.01	.06	-.13	.12	.12													
-1SD											-.02	.03	-.1	.01	.01	-.12	.08	-.29	.02	.02			
Mean											-.01	.01	-.04	.03	.03	-.04	.05	-.15	.06	.06			
+1SD											.02	.02	-.01	.08	.08	.04	.06	-.08	.17	.17			
mm	.03	.04	-.03	.12	.12	.07	.11	-.14	.31	.31	.03	.02	-.01	.1	.1	.11	.06	-.01	.25	.25			
x_high																							
a	.33	.28	1.2	-.21	.89	-1.38**	.34	-4.02	-2.05	-.7	.33	.28	1.2	-.21	.89	-1.38**	.34	-4.02	-2.05	-.7			
b	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34			
c'	-.71***	.12	-5.83	-.95	-.47	-.71***	.12	-5.83	-.95	-.47	-.71***	.12	-5.83	-.95	-.47	-.71***	.12	-5.83	-.95	-.47			
a*b																							
Male	.03	.03	-.01	.11	.11	-.38	.09	-.58	-.21	-.21													
Female	.04	.03	-.01	.1	.1	-.3	.09	-.49	-.13	-.13													
-1SD											.01	.02	-.03	.06	.06	-.42	.09	-.62	-.25	-.25			
Mean											.04	.02	.01	.1	.1	-.35	.07	-.51	-.21	-.21			
+1SD											.06	.04	.01	.16	.16	-.28	.09	-.48	-.1	-.1			
mm	.01	.03	-.07	.08	.08	.08	.11	-.13	.31	.31	.03	.03	-.01	.01	.01	.09	.07	-.05	.24	.24			
m_high																							
a	.49	.31	1.58	-.12	1.12	-.79*	.38	-2.07	-1.55	-.03	.49	.31	1.58	-.12	1.12	-.79*	.38	-2.07	-1.55	-.03			
b	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34			
c'	-.77***	.11	-6.63	-.99	-.54	-.77***	.11	-6.63	-.99	-.54	-.77***	.11	-6.63	-.99	-.54	-.77***	.11	-6.63	-.99	-.54			
a*b																							
Male	.05	.04	-.01	.15	.15	-.22	.08	-.39	-.04	-.04													
Female	.04	.02	-.01	.1	.1	-.37	.08	-.55	-.22	-.22													
-1SD											.01	.02	-.03	.05	.05	-.44	.09	-.65	-.27	-.27			
Mean											.04	.02	.01	.09	.09	-.35	.06	-.49	-.22	-.22			
+1SD											.07	.04	.01	.17	.17	-.25	.07	-.41	-.1	-.1			
mm	-.01	.04	-.1	.05	.05	-.15	.1	-.39	.04	.04	.04	.03	-.01	.11	.11	.12	.07	.01	.28	.28			
f_high																							
a	.34	.29	1.15	-.24	.93	-1.01*	.36	-2.76	-1.72	-.29	.34	.29	1.15	-.24	.93	-1.01*	.36	-2.76	-1.72	-.29			
b	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34	.1**	.04	2.43	.02	.19	.28***	.03	7.97	.21	.34			
c'	-.67***	.11	-5.89	-.89	-.44	-.67***	.11	-5.89	-.89	-.44	-.67***	.11	-5.89	-.89	-.44	-.67***	.11	-5.89	-.89	-.44			
a*b																							
Male	.03	.04	-.02	.14	.14	-.28	.07	-.42	-.15	-.15													
Female	.04	.03	.01	.11	.11	-.28	.08	-.47	-.13	-.13													
-1SD											-.01	.02	-.06	.04	.04	-.45	.09	-.66	-.27	-.27			
Mean											.04	.02	.01	.09	.09	-.3	.06	-.44	-.17	-.17			
+1SD											.08	.04	.01	.18	.18	-.14	.06	-.28	-.02	-.02			
mm	.01	.04	-.08	.08	.08	-.01	.09	-.19	.17	.17	.06	.03	.01	.14	.14	.2	.06	.08	.34	.34			

*p<.05. **p<.01. ***p<.001

a = independent variable (IV) to mediator (M);

b = mediator to dependent variable (DV);

c' = independent variable to dependent variable;

a*b = independent variable to dependent variable through mediator

mm = moderated mediation

Adjusted R² = .51

Adjusted R² = .51

Results of moderated mediation analysis (Hayes, 2018))

		Gender										Preference										
		Agency					Community					Agency					Community					
		95% confidence interval										95% confidence interval										
Group	Path	Coefficient	SE	t	LLCI	ULCI	Coefficient	SE	t	LLCI	ULCI	Coefficient	SE	t	LLCI	ULCI	Coefficient	SE	t	LLCI	ULCI	
Harm AG, CO PG, PP	m_low																					
	a	.03	.33	.11	-.61	.69	-.63	.4	-1.56	-1.44	.16	.03	.33	.11	-.61	.69	-.63	.4	-1.56	-1.44	.16	
	b	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	
	c'	.02	.13	.17	-.24	.29	.02	.13	.17	-.24	.29	.02	.13	.17	-.24	.29	.02	.13	.17	-.24	.29	
	a*b																					
	Male	-.01	.05		-.11	.09	.12	.08		-.02	.3											
	Female	-.03	.02		-.08	.01	.02	.04		-.07	.12											
	-1SD																					
	Mean																					
	+1SD																					
	mm	-.02	.05		-.14	.09	-.1	.09		-.31	.07	-.06	.03		-.14	-.01	-.04	.05		-.15	.05	
	f_low																					
	a	-.2	.29	-.71	-.78	.36	-.27	.35	-.77	-.98	.42	-.2	.29	-.71	-.78	.36	-.27	.35	-.77	-.98	.42	
	b	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	
	c'	.21	.13	1.6	-.04	.48	.21	.13	1.6	-.04	.48	.21	.13	1.6	-.04	.48	.21	.13	1.6	-.04	.48	
a*b																						
Male	.02	.03		-.03	.1	.05	.06		-.06	.2												
Female	-.01	.02		-.06	.04	.01	.04		-.09	.1												
-1SD																						
Mean																						
+1SD																						
mm	-.04	.04		-.13	.04	-.05	.08		-.23	.09	-.04	.03		-.12	.01	-.07	.05		-.19	.01		
x_high																						
a	.33	.28	1.2	-.21	.89	-1.38***	.34	-4.02	-2.05	-.7	.33	.28	1.2	-.21	.89	-1.38***	.34	-4.02	-2.05	-.7		
b	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11		
c'	.4**	.14	2.74	.11	.69	.4**	.14	2.74	.11	.69	.4**	.14	2.74	.11	.69	.4**	.14	2.74	.11	.69		
a*b																						
Male	-.04	.03		-.13	.01	.27	.08		.12	.46												
Female	-.04	.03		-.11	.01	.21	.07		.07	.39												
-1SD																						
Mean																						
+1SD																						
mm	-.01	.04		-.08	.09	-.05	.08		-.23	.09	-.04	.03		-.13	.01	-.06	.05		-.2	.03		
m_high																						
a	.49	.31	1.58	-.12	1.12	-.79*	.38	-2.07	-1.55	-.03	.49	.31	1.58	-.12	1.12	-.79*	.38	-2.07	-1.55	-.03		
b	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11		
c'	.5***	.14	3.6	.22	.78	.5***	.14	3.6	.22	.78	.5***	.14	3.6	.22	.78	.5***	.14	3.6	.22	.78		
a*b																						
Male	-.06	.04		-.17	.01	.15	.07		.03	.32												
Female	-.04	.03		-.11	.01	.26	.07		.13	.43												
-1SD																						
Mean																						
+1SD																						
mm	.01	.04		-.07	.11	.1	.07		-.03	.27	-.04	.03		-.13	.01	-.09	.05		-.2	.01		
f_high																						
a	.34	.29	1.15	-.24	.93	-1.01**	.36	-2.76	-1.72	-.29	.34	.29	1.15	-.24	.93	-1.01**	.36	-2.76	-1.72	-.29		
b	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11	-.12**	.05	-2.31	-.22	-.01	-.19***	.04	-4.68	-.28	-.11		
c'	.38**	.13	2.77	.11	.65	.38**	.13	2.77	.11	.65	.38**	.13	2.77	.11	.65	.38**	.13	2.77	.11	.65		
a*b																						
Male	-.04	.04		-.14	.03	.2	.06		.08	.34												
Female	-.05	.03		-.11	.01	.2	.07		.08	.36												
-1SD																						
Mean																						
+1SD																						
mm	-.01	.04		-.11	.09	.01	.06		-.14	.13	-.07	.04		-.17	-.01	-.14	.05		-.27	-.05		

*p<.05, **p<.01, ***p<.001

a = independent variable (IV) to mediator (M);

b = mediator to dependent variable (DV);

c' = independent variable to dependent variable;

a*b = independent variable to dependent variable through mediator

mm = moderated mediation

Adjusted R² = .26

Adjusted R² = .26

4.2.5. Additional analysis

Hypothesis testing results have shown that agency and communality mediate the relationship between leader preference for solitude (high vs. low) and intended behaviors. However, results showed competitive mediation. To better understand how leader solitude preference impacts behavioral intentions, agency and communality need to be assessed in one model. The stereotype-content model uses both agency and communality in one model to categorize specific stereotypes, and the BIAS map extends these combinations of agency and communality toward behavioral intentions (Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008; Fiske S., Cuddy, Glick, & Xu, 2002). Furthermore, social evaluation theory has shown the primacy of communality, where it is assessed before agency. We first assess one's intentions, and based on those intentions, we assess one's ability to act upon those intentions (Fiske, Cuddy & Glick, 2007). Besides the theoretical arguments for a causal relationship between agency and communality, correlations showed that agency and communality are related ($r = .22$). To investigate the impact of agency and communality as causal variables on the relationship between leader preference for solitude and behavioral intentions, serial mediation was performed using SPSS PROCESS Model 6 (Hayes 2021). Serial mediation results can be found in table 13, regression results in appendix 3.

Serial mediation results replicated that agency and communality have a relative indirect effect on behavioral intentions for both intended behaviors. Most importantly, the effect through agency was positive, and the effect was negative through communality. The relative indirect effects of leader preference for solitude on facilitative behaviors through communality and agency were found to be negative, ranging between $-.55 (.02)$ and $-.04 (.01)$ and 95 % BootCI excluded zero ($-.11$ to $-.01$). For intended harmful behaviors, positive relative indirect effects were found

ranging between .05 (.02) and .06 (.03), and 95 % BootCI excluded zero (.01 to .12). Age showed no statistical significance ($p > .05$) with $B = .01$ (.01).

The results indicate that agency and communality explain a part of the conflict between leader preference for solitude and intended behaviors. The serial mediation yielded an adjusted $R^2 = .51$ for facilitation and $R^2 = .26$ for harm. The models explain 51% and 26% of the variance.

Results of serial mediation analysis (Hayes, 2018)

Group	Path	Facilitation					Harm					
		Coefficient	SE	t	95% confidence interval		Coefficient	SE	t	95% confidence interval		
					LLCI	ULCI				LLCI	ULCI	
AG, CO PG, PP	m_low	a1	-.22	.2	-1.07	-.63	.18	-.22	.2	-1.07	-.63	.18
		a2	.27	.15	1.78	-.02	.58	.27	.15	1.78	-.02	.58
	d21	.3***	.04	6.87	.22	.39	.3***	.04	6.87	.22	.39	
	b1	.28***	.03	7.97	.21	.34	-.19***	.04	-4.68	-.28	-.11	
	b2	.1**	.04	2.43	.02	.19	-.12**	.05	-2.31	-.22	-.01	
	c	-.26*	.13	-2.02	-.52	-.01	.04	.14	.29	-.24	.33	
	c'	-.22*	.11	-1.97	-.44	-.01	.02	.13	.17	-.24	.29	
	CO	a1*b1	-.06	.05	-.05	-.17	.04	.04	.04	-.03	.13	
	AG	a2*b2	.02	.02	.02	-.01	.07	-.03	.02	-.08	.01	
	CO*AG	sm	-.01	.01	-.01	-.02	.01	.01	.01	-.01	.02	
	f_low	a1	a1	-.1	.2	-.52	-.51	.29	-.1	.2	-.52	-.51
a2			.04	.15	.27	-.26	.34	.04	.15	.27	-.26	.34
d21		.3***	.04	6.87	.22	.39	.3***	.04	6.87	.22	.39	
b1		.28***	.03	7.97	.21	.34	-.19***	.04	-4.68	-.28	-.11	
b2		.1**	.04	2.43	.02	.19	-.12**	.05	-2.31	-.22	-.01	
c		-.23	.12	-1.78	-.48	.02	.23	.14	1.64	-.04	.52	
c'		-.20	.11	-1.81	-.42	.01	.21	.13	1.6	-.04	.48	
CO		a1*b1	-.03	.05	-.03	-.14	.07	.02	.04	-.05	.1	
AG		a2*b2	.01	.01	.01	-.02	.03	-.01	.01	-.03	.03	
CO*AG		sm	-.01	.01	-.01	-.02	.01	.01	.01	-.01	.02	
x_high		a1	a1	-1.21***	.2	-5.92	-1.61	-.81	-1.21***	.2	-5.92	-1.61
	a2		.74***	.16	4.6	.42	1.07	.74***	.16	4.6	.42	1.07
	d21	.3***	.04	6.87	.22	.39	.3***	.04	6.87	.22	.39	
	b1	.28***	.03	7.97	.21	.34	-.19***	.04	-4.68	-.28	-.11	
	b2	.1**	.04	2.43	.02	.19	-.12**	.05	-2.31	-.22	-.01	
	c	-1.01***	.12	-7.86	-1.26	-.76	.6***	.14	4.19	.32	.88	
	c'	-.71***	.12	-5.83	-.95	-.47	.4**	.14	2.74	.11	.69	
	CO	a1*b1	-.34	.07	-.49	-.20	.20	.24	.07	.11	.39	
	AG	a2*b2	.07	.03	.07	.01	.16	-.09	.04	-.17	-.01	
	CO*AG	sm	-.03	.01	-.03	-.08	-.01	.04	.02	.01	.09	
	m_high	a1	a1	-1.23***	.19	-6.48	-1.6	-.86	-1.23***	.19	-6.48	-1.6
a2			.77***	.15	5.05	.47	1.07	.77***	.15	5.05	.47	1.07
d21		.3***	.04	6.87	.22	.39	.3***	.04	6.87	.22	.39	
b1		.28***	.03	7.97	.21	.34	-.19***	.04	-4.68	-.28	-.11	
b2		.1**	.04	2.43	.02	.19	-.12**	.05	-2.31	-.22	-.01	
c		-1.07***	.12	-8.95	-1.31	-.83	.7***	.13	5.26	.44	.96	
c'		-.77***	.11	-6.63	-.99	-.54	.5**	.14	3.6	.22	.78	
CO		a1*b1	-.34	.06	-.49	-.21	.21	.24	.06	.12	.39	
AG		a2*b2	.08	.04	.08	.01	.17	-.09	.04	-.18	-.01	
CO*AG		sm	-.04	.02	-.04	-.08	-.01	.04	.02	.01	.09	
f_high		a1	a1	-1.01***	.19	-5.29	-1.39	-.63	-1.01***	.19	-5.29	-1.39
	a2		.73***	.15	4.95	.43	1.02	.73***	.15	4.95	.43	1.02
	d21	.3***	.04	6.87	.22	.39	.3***	.04	6.87	.22	.39	
	b1	.28***	.03	7.97	.21	.34	-.19***	.04	-4.68	-.28	-.11	
	b2	.1**	.04	2.43	.02	.19	-.12**	.05	-2.31	-.22	-.01	
	c	-.91***	.12	-7.53	-1.15	-.67	.53***	.13	3.95	.26	.8	
	c'	-.67***	.11	-5.89	-.89	-.44	.38**	.13	2.77	.11	.65	
	CO	a1*b1	-.28	.07	-.43	-.15	.15	.2	.06	.09	.34	
	AG	a2*b2	.07	.04	.07	.01	.16	-.08	.04	-.17	-.01	
	CO*AG	sm	-.03	.01	-.03	-.07	-.01	.03	.01	.01	.08	

* $p < .05$, ** $p < .01$, *** $p < .001$
 c = total effect
 a1 = independent variable (IV) to mediator 1 (M1); c' = independent variable to dependent variable;
 a2 = independent variable (IV) to mediator 2 (M2); CO a1*b1 = indirect effect through communality
 d21 = mediator 1 to mediator 2 AG a2*b2 = indirect effect through agency
 b1 = mediator 1 to dependent variable (DV); CO*AG sm = indirect effect communality and agency
 b2 = mediator 2 to dependent variable (DV);
 Adjusted $R^2 = .51$
 Adjusted $R^2 = .26$

Table 13

4.3. Discussion

The study has shown that leaders who prefer solitude (high vs. low) are socially evaluated as more agentic and less communal. This conclusion is based on the mean differences between the groups (high vs. low) using the perception of agentic and communal traits. These findings align with study 1 and Ren & Evans (2021). In the two mentioned studies, a generic context was used. Study 2 shows that the effect of expressing a preference for solitude on social evaluation also occurs in a leadership context. The perception of a leader is impacted by the expression of a high (vs. low) preference for solitude. Thus, extending support for suggestions in leadership perception for the sake of leader effectiveness and success is necessary (Lee et al., 2015; Lord, Foti, & De Vader, 1984). The findings in study 2 provide empirical evidence supporting the need to understand leadership perceptions.

To further extend the findings and develop our understanding of the actual impact of leadership perception, we assessed how expressing a high (vs. low) preference for solitude impacts intended behaviors. Testing the relationship was grounded in theory related to the stereotype-content model and the BIAS map (Fiske S., Cuddy, Glick, & Xu, 2002; Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008). In applying the model to leaders and explicitly focusing on behavioral intentions, we have shown that leaders who express a high (vs. low) preference for solitude are subject to less facilitative and more harmful behaviors.

Additional analysis has addressed the found competitive mediation. The relative indirect effect of communality and agency as serial mediators was negative and relatively small. This was due to the opposing effects of communality and agency. Indicating that communality and agency explain a part of the relationship between leader preference for solitude and intended behaviors and confirming the usefulness of testing communality and agency in a causal relationship as suggested by the primacy of communality (Fiske, Cuddy & Glick, 2007).

5. General discussion

5.1. Discussion and theoretical contributions

The thesis aimed to answer the question: "*When and how does leader solitude expression affect the follower's leadership perception through agency and communality, and what are the consequences of this relationship for behaviors towards leaders*".

Two survey experiments were used to examine the implications of expressing a preference for solitude (high vs. low) on the social evaluation of leaders and its potential consequences. The first study showed that individuals who seek solitude are socially evaluated as more agentic and less communal, which confirmed findings by Ren and Evans (2021).

Across two studies, we found consistent evidence that individuals expressing a high (vs. low) preference for solitude are socially evaluated as more agentic and less communal. Through these effects, less facilitative and more harmful intended behaviors were found elicited. This conclusion is based on mean differences in the evaluation of agency and communality between high vs. low preference for solitude groups. These findings were found across the contexts of data collection: the Netherlands and the United Kingdom; online and in a laboratory; from college students and Prolific.

Importantly, our second study provides insights into the functioning of the relationship between leader preference for solitude and intended behaviors. Facilitation and harm are both related to expressing a high preference for solitude which are also both related to agency and communality. These findings support and build on theorizing in social evaluation theory and stereotyping theory that specific stimuli or behaviors trigger perceptions of individuals, which then impact intended behaviors (Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, Glick, & Xu, 2002; Sczesny & Kuhnen; 2004).

Our work also provides insights into the role of stereotyping in social evaluation. Gender was not found to cause any form of stereotyping within the study due to the probable failure of the

manipulation. However, manipulating preference for solitude did generate a stereotyping effect. Thus, unintentionally confirming theoretical suggestions by Ossenkop, Vinkenburg, Jansen, and Ghorashi (2015) that the salience of a specific characteristic determines whether or not a characteristic is a trigger to create cognitive groups. Solitude-preferring participants evaluated targets and leaders with a high preference for solitude, more mildly indicating an in-group effect on the social evaluation (Byrne, 1971; Tajfel & Turner, 1986; Turner, 1982).

Moving beyond these findings, we explored the functioning of the relationship between leaders expressing a preference for solitude and behavioral intentions, the role of perceived agency and perceived communality towards behavioral intentions, and the role of identified moderators (gender, perceiver preference for solitude). Results established that the effect of target solitude preference carries over to intended behaviors and that the relationship with agency and communality as mediators is moderated by perceiver preference for solitude. This confirms the findings from Sczesny & Kuhnen (2004) that specific stimuli or behaviors impact leadership perception. Leader preference for solitude was found to have a positive relative indirect effect on intended facilitative behaviors and a negative effect on intended harmful behaviors through agency. Through communality, an inverse effect was found. Such effects have been found to indicate that omitted variables within the model are needed to fully explain the relationship, as is the case with complementary mediation (Zhao, Lynch Jr, & Chen, 2010).

Reevaluation of the stereotype-content model and the BIAS map provided an indication as to why the contradictory results were found. In the stereotype-content model, both agency and communality are assessed in one model to categorize specific stereotypes, and the BIAS map extends these combinations of agency and communality toward behavioral intentions (Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008; Fiske S., Cuddy, Glick, & Xu, 2002). Furthermore, social evaluation theory has found the primacy of communality, where it is assessed before agency. We first assess one's intentions, and based on those intentions, we assess one's

ability to act upon those intentions, which indicates a causal relationship between agency and communality. Agency and communality function differently because they assess different aspects of an individual but together, they form the whole perception of the specific individual (Fiske, Cuddy & Glick, 2007). Through serial mediation, it was found that overall leader preference for solitude has a negative effect on intended facilitative behaviors and a positive effect on intended harmful behaviors. However, the impact is much lower than the initially found direct effect. Yet, the explained variance remained the same.

Leadership perception theory and the stereotype content model with the BIAS map have tested the role of affect. Arguing that affect generated by stereotypes and attitudes can explain parts of the relationships between stimuli and behaviors (Cuddy, Fiske, & Glick, 2007; Cuddy, Fiske, & Glick, 2008; Fiske S., Cuddy, Glick, & Xu, 2002; Lee et al., 2015). These findings provided more insights into the complexity of the relationship between leader preference for solitude and intended behaviors. However, they did not provide conclusive findings.

In attempting to develop a model to assess intended behaviors as a consequence of preferring solitude, we have laid the groundwork for developing a model to broaden our understanding of what can impact leadership perception and the potential consequences. It is recommended to test if the suggested model, with suggested improvements, also applies to other characteristics that define a leader (e.g., race, age, ideology).

5.2. Limitations and additional further directions

Although the study provides several contributions, limitations must be discussed. First, both samples have provided valuable insight and served the study's purpose. However, the samples' homogenous composition limits the possibility of generalizing results. Though not in the scope of the current studies, it would be valuable for research to recruit more diverse samples (e.g., culture or functional background). Both samples had a mean age of 19 and 30, respectively. It cannot be said that these age categories represent perceptions found in older workforce segments. In terms

of survey design, neither of the studies contained manipulation checks. So, it cannot be definitively said that the manipulations worked. They appear to have worked, but third factors may have impacted them. Also, we collected data from a student sample and paid sample in the Netherlands and the United Kingdom, respectively. This constrains the generalizability of the results since the participants fill out surveys for course credits or as a side job. Attention checks were used to test if participants took the survey seriously. However, this cannot be guaranteed.

Secondly, we used hypothetical profiles in both studies to manipulate preference for solitude. This approach is limited in two ways. Firstly, used profiles (written description) may not represent the actual levels of preference for the solitude of individuals people encounter in their social environment. Secondly, the profiles made the information of preference for solitude explicit and salient. In a work environment, how explicit characteristics are, and the consequential salience of the character is much more distorted by other factors. Research has suggested that people readily detect a preference for solitude (Harrist et al., 1997). Furthermore, research has suggested that people can determine and detect characteristics of a personality based on limited interactions (Connelly & Ones, 2010; Tskhay & Rule, 2014). However, it cannot be stated that the presented profile is representative of a realistic interaction. As other studies have suggested, testing the found effects in a realistic setting could prove valuable. For example, a lab experiment in which the target person or leader briefly interacts with the participant (Rothbard et al., 2020).

A third limitation can be found in the contextualization of the target and how we specified the characteristics of the target. We attempted to define gender as a primary dimension characteristic because the evaluation of an individual was expected to be strongly impacted by gender (Rijamampianina & Carmichael, 2005). However, gender was defined by naming the target. Studies on which this approach was based provided more indicators of gender such as name, picture, recording, and audio clip (Rothbard et al., 2020). The idea was that naming target would be sufficient to make gender a salient characteristic for the evaluation of target. However, as the

results have shown, this approach appears insufficient. Furthermore, it was not a definitive limitation because manipulation checks were not present in the study. Thus, future research should incorporate more means to specify target characteristics and manipulation checks. However, this will likely be accompanied by specifying, for example, ethnic characteristics, which will complicate the extent to which the impact of gender can be inferred.

Fourthly, the results from the moderated mediation analysis are relative. Conventional mediation does not use categorical antecedents. The method used has been tested, but it has been critiqued on its sensitivity to coding mechanisms, where results can be impacted by the coding method of the antecedent groups. Also, mediation is found if one of the categories has a significant indirect effect. Hence the term, relative indirect effect. This methodology may have skewed the results. Therefore, only a relative effect is interpreted, and further research should attempt to test the relationship with continuous or dichotomous antecedents (Hayes & Preacher, 2014, pp. 206-208).

Lastly, the extent to which behaviors have been defined is limited. The BIAS map provided a framework of four categories of behavior, differentiating between active and passive. These were tested on two items per scale, and the scale's alphas were unsatisfactory. The reliability of the behavioral scales was limited. So, the differentiation between active and passive was discarded in this study. Afterward, the reliability scales were satisfactory (Cuddy, Fiske, & Glick, 2007; Sevillano & Fiske, 2019; Strinić, Carlsson, & Agerström, 2021). Additionally, we assessed intended behaviors. No indications of the likelihood of these intentions turning into actions were provided. Exploring other methods of defining behavioral intentions like Ajzens (1991) theory of planned behavior is recommended.

6. Conclusion

This thesis contributes to research on leadership perceptions and sheds light on the relationship between leader actions (expressing a preference for solitude), perception by followers, and consequential behaviors by followers. The thesis contributes to the development of leadership perception theory by providing evidence that leadership perceptions are shaped through evaluating agency and communality in a leader by followers. Standard measures of leadership perceptions define the perception but do not indicate the consequences. By applying the stereotype content model and BIAS map, we have contributed to the domain by developing a theoretical base for the development of a model which further incorporates the follower into the assessment of leadership perception. Our main contribution is the start of developing a model to broaden our understanding of what can impact leadership perceptions and the potential consequences for leaders. Based on these results and contributions, future work can continue the development of the model, which incorporates actions, leadership perceptions, and consequences to inform leaders on how they are perceivers and to inform them on expected reactions to how they are perceived. These sources of information can enable leaders to manage how they are perceived and help them capitalize on positive consequences and manage negative ones.

Bibliography

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, 41(3), 258.
- Bakan, D. (1956). *The Duality of Human Existence: An Essay on Psychology and Religion*. Oxford: Rand McNally.
- Baril, G. L., Mahar-Potter, S., & Reavy, G. C. (1989). Are androgynous managers really more effective? . *Group & Organization Studies*, 234-249.
- Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's handbook of leadership : theory, research, and managerial applications*. New York: Free Press.
- Bernerth, J. B., & Aguinis, H. (2016). A critical review and best-practice recommendations for control variable usage. *Personnel Psychology*, 69(1), 229–283.
- Bosak, J., Asbrock, F., & Meyer, B. (2021). Salience of category. *Evolutionary psychological science*, 6786-6793).
- Bowker, J. C., Ooi, L. L., & Coplan, R. J. (2020). When is it Okay to be Alone? Gender Differences in Normative Beliefs about Social Withdrawal in Emerging Adulthood. *Sex Roles*, 82(7-8), 482-492.
- Burger, J. M. (1995). Individual differences in preference for solitude. *Journal of Research in Personality*, 29, 85–108.
- Byrne, D. E. (1971). *The attraction paradigm* (Vol. 11). New York: Academic Press.
- Cassidy, B. S., Shih, J. Y., & Gutchess, A. H. (2012). Age-related changes to the neural correlates of social evaluation. *Social neuroscience*, 7(6), 552-564.
- Chemers, M. M. (1997). *An integrative theory of leadership*. Lawrence Erlbaum Associates Publishers.
- Connelly, B. S., & Ones, D. S. (2010). An other perspective on personality: Meta-analytic integration of observers' accuracy and predictive validity. *Psychological Bulletin*, 136, 1092-1122.
- Coplan, R. J., Bowker, J. C., & Nelson, L. J. (2021). Alone Again: Revisiting Psychological Perspectives on Solitude. In R. J. Coplan, J. C. Bowker, & L. J. Nelson, *The Handbook of Solitude: Psychological Perspectives on Social Isolation, Social Withdrawal, and Being Alone* (2nd ed., pp. 3-11). John Wiley & Sons, Inc.
- Coplan, R. J., Bowker, J. C., & Nelson, L. J. (2021). *The Handbook of Solitude*. (Second, Ed.) Hoboken: John Wiley & Sons, Inc.
- Coplan, R. J., Hipson, W. E., Archbell, K. A., Ooi, L. L., Baldwin, D., & Bowker, J. C. (2019). Seeking more solitude: Conceptualization, assessment, and implications of aloneliness. *Personality and Individual Differences*, 148, 17–26.

- Coplan, R. J., Ooi, L. L., & Baldwin, D. (2019). Does it matter when we want to Be alone? Exploring developmental timing effects in the implications of unsociability. *New Ideas in Psychology*, 53, 47-57.
- Coplan, R., Ooi, L., & Baldwin, D. (2019). Does it matter when we want to Be alone? Exploring developmental timing effects in the implications of unsociability. *New Ideas in Psychology*, 47-57.
- Corpuz, J. C. (2021). Adapting to the culture of ‘new normal’: an emerging response to COVID-19. *Journal of Public Health*, 43(2), e344-e345.
- Cuddy, A., Fiske, S., & Glick, P. (2007). The BIAS Map: Behaviors From Intergroup Affect and Stereotypes. *Journal of Personality and Social Psychology*, 92(4), 631-648.
- Cuddy, A., Fiske, S., & Glick, P. (2008). Warmth and Competence as Universal Dimensions of Social Perception: The Stereotype Content Model and the BIAS Map. *Advances in Experimental Social Psychology*, 40, 61-149.
- Danesi, G. (2012). Pleasures and stress of eating alone and eating together among French and German young adults. *Menu: the Journal of Eating and Hospitality Research*, 1, 77-91.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth TX: Harcourt brace Jovanovich.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109, pp. 573-598.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice towards female leaders. *Psychological Review*, pp. 573-598.
- Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, 125-145.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573-598.
- Field, A. (2017). *Discovering statistics using SPSS* (Vol. 5). Sage.
- Findor, A., Láštiová, B., Hruška, M., Popper, M., & Váradi, L. (2020). The Impact of Response Instruction and Target Group on the BIAS Map. *Frontiers in psychology*, 11.
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, 38(6), 889–906.
- Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey, *The handbook of social psychology* (4 ed., Vol. 2, pp. 357-411). Boston: McGraw-Hill.
- Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: warmth and competence. *Trends in Cognitive Sciences*, 11(2), pp. 77-83.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.

- Gipson, A. N., Pfaff, D. L., Mendelsohn, D. B., Catenacci, L. T., & Burke, W. W. (2017). Women and leadership: Selection, development, leadership style, and performance. *The Journal of Applied Behavioral Science*, 53(1), 32-65.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-Based Approach to Leadership: Development of Leader-Member Exchange (LMX) Theory of Leadership over 25 Years: Applying a Multi-level Multi-Domain Perspective. *Leadership Quarterly*, 6, 219-247.
- Graham-Meyer, K. (1997). *Personal History*. Alfred A. Knopf Incorporated.
- Haines, E. L., Deaux, K., & Lofaro, N. (2016). The times they are a-changing... or are they not? A comparison of gender stereotypes, 1983–2014. *Psychology of Women Quarterly*, 40(3), pp. 353-363.
- Hamilton, D. L., & Sherman, J. W. (1994). Stereotypes. In R. S. Wyer, & T. K. Srull, *Handbook of social cognition* (pp. 1-68). Psychology Press.
- Hansbrough, K., Lord, R. G., & Schyns, B. (2014). Reconsidering the accuracy of follower leadership ratings. *The Leadership Quarterly*, 26, 220-237.
- Harrist, J., Zaia, A. F., Bates, J. E., Dodge, K. A., & Pettit, G. S. (1997). Subtypes of social withdrawal in early childhood: Sociometric status and social-cognitive differences across four years. *Child Development*, 68, 278-294.
- Hayes, A. F. (2021). *Introduction to Mediation, Moderation, and Conditional Process Analysis* (Third edition ed.). New York: Guilford Press.
- Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67, 451–470.
- Heilman, M. E. (1995). Sex stereotypes and their effects in the workplace: What we know and what we don't. *Journal of Social Behavior and Personality*, 10, 3-26.
- Henry, G. T. (1990). *Practical sampling* (Vol. 21). Sage.
- Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual review of psychology*, 47, pp. 237-271.
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin, & O. P. John, *Handbook of personality: Theory and research* (Vol. 2, pp. 102–138). New York: Guilford Press.
- Kenney, L. (2020). *Companies Can't Ignore Shifting Gender Norms*. Retrieved May 2022, from HBR.org: <https://hbr.org/2020/04/companies-cant-ignore-shifting-gender-norms>
- Koenig, A. M. (2018). Comparing prescriptive and descriptive gender stereotypes about children, adults, and the elderly. *Frontiers in psychology*, 9, 1-13.
- Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616-642.
- Lam, H. (2021). Solitude Expression & Social Evaluation at Work [Unpublished manuscript].

- Larson, R. W. (1990). The solitary side of life: An examination of the time people spend alone from childhood to old age. *Developmental Review*, 10, 155-183.
- Lee, A., Martin, R., Thomas, G., Guillaume, Y., & Maio, G. R. (2015). Conceptualizing leadership perceptions as attitudes: Using attitude theory to further understand the leadership process. *The Leadership Quarterly*, 26(6), pp. 910-934.
- Lesack, K., & Naugler, C. (2011). An open-source software program for performing Bonferroni and related corrections for multiple comparisons. *Journal of pathology informatics*, 2(52).
- Lewis, M. W. (2000). Exploring paradox: Toward a more comprehensive guide. *Academy of Management Review*, 25(4), pp. 760–776.
- Liu, S., Lucy Liu, X., Wang, H., & Wang, Y. (2021). Humble Leader Behavior and Its Effects on Performance at the Team and Individual Level: A Multi-Perspective Study. *Group & Organization Management*. doi:10596011211024429
- Long, C. R., Sebrun, M., Averill, J. R., & More, T. A. (2003). Solitude experiences: Varieties, settings, and individual differences. *Personality and Social Psychology Bulletin*, 29, 578–583.
- Lord, R. G., Foti, R. J., & De Vader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational behavior and human performance*, 34(3), 343-378.
- Montoya, R. M., & Horton, R. S. (2013). A meta-analytic investigation of the processes underlying the similarity-attraction effect. *Journal of Social and Personal Relationships*, 30(1), 64-94.
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of personality and social psychology*, 89(6), 852-863.
- Muterera, J., Hemsworth, D., Baregheh, A., & Garcia-Rivera, B. R. (2018). The Leader–Follower Dyad: The Link Between Leader and Follower Perceptions of Transformational Leadership and Its Impact on Job Satisfaction and Organizational Performance. *International Public Management Journal*, 21(1), 131-162.
- Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European journal of social psychology*, 15(3), 263-280.
- Nguyen, T. V., Ryan, R. M., & Deci, E. L. (2018). Solitude as an approach to affective self-regulation. *Personality and Social Psychology Bulletin*, 44, 92–106.
- Ossenkop, C., Vinkenburg, C. J., Jansen, P. G., & Ghorashi, H. (2015). Ethnic diversity and social capital in upward mobility systems. *Career Development Internationa*, 20(5), 539-558.
- Ossenkop, C., Vinkenburg, C. J., Jansen, P. G., & Ghorashi, H. (2015). Ethnic identity positioning at work: Understanding professional career experiences. *Scandinavian Journal of Management*, 31(4), 515-525.

- Petro, G. (2022, May). *Gen Z: New Gender Norms, Fake News, Frugality And The Rise Of Retail's Next Power Generation*. Retrieved from Forbes.com:
<https://www.forbes.com/sites/gregpetro/2018/10/14/gen-z-new-gender-norms-fake-news-frugality-and-the-rise-of-retails-next-power-generation/?sh=2479c0897382>
- Powell, G. N., & Butterfield, D. A. (1979). The "good manager": Masculine or androgynous? . *Academy of Management Journal*, 395-403.
- Powell, G. N., Butterfield, D. A., & Parent, J. D. (2002). Gender and managerial stereotypes: Have the times. *Journal of Management*, 28, 177-193.
- Ren, D., & Evans, A. (2021). Leaving the Loners Alone: Dispositional Preference for Solitude Evokes Ostracism. *Personality and Social Psychology Bulletin*, 47(8), 1294-1308.
- Rijamampianina, R., & Carmichael, T. (2005). A Pragmatic and Holistic Approach to Managing Diversity. *Problems and perspectives in management*, 1, 109-117.
- Rothbard, N. P., Ramarajan, L., Ollier-Malaterre, A., & Lee, S. (2020). OMG! My Boss Just Friended Me: How Evaluations of Colleagues' Disclosure, Gender, and Rank Shape Personal/Professional Boundary Blurring Online. *Academy of Management Journal*, 1-64.
- Rudman, L. A., & Glick, P. (1999). Feminized management and backlash towards agentic women: The hidden. *Journal of Personality and Social Psychology*, 77, 1004-1010.
- Schaubroeck, J., Lam, S. S., & Cha, S. E. (2007). Embracing transformational leadership: Team values and the impact of leader behavior on team performance. *Journal of Applied Psychology*, 92(4), 1020-1030.
- Schein, V. E. (1976). Think manager – Think male. *Atlanta Economic Review*, 26, 21-24.
- Schein, V. E., Mueller, R., Lituchy, T., & Liu, J. (1996). Think manager – Think male: A global phenomenon? *Journal of Organizational Behavior*, 17, 33-41.
- Schuleigh, V. E., Malouff, J. M., Schutte, N. S., & Loi, N. M. (2019). ENHANCING MEETINGS: The Impact of Leader Behavior. *Journal of Leadership Education*, 18(3).
- Sczesny, S., & Kuhnen, U. (2004). Meta-Cognition about Biological Sex and Gender-Stereotypic Physical Appearance: Consequences for the Assessment of Leadership Competence. *Personality and Social Psychology Bulletin*, 30(1), 13-21.
- Sczesny, S., Bosak, J., Neff, D., & Schyns, B. (2004). Gender stereotypes and the attribution of leadership traits: A cross-cultural comparison. *Sex Roles*, 51, 631-645.
- Sehgal, R., Balasubramanian, S., & Sreejith, S. (2021). Transformational leadership and employee innovation: Examining the congruence of leader and follower perceptions. *Journal of General Management*, 47(1), 18-30.
- Sevillano, V., & Fiske, S. T. (2019). Stereotypes, emotions, and behaviors associated with animals: A causal test of the stereotype content model and BIAS map. *Group Processes & Intergroup Relations*, 22(6), 879-900.

- Sin, H. P., Nahrgang, J. D., & Morgeson, F. P. (2009). Understanding why they don't see eye to eye: an examination of leader-member exchange (LMX) agreement. *Journal of Applied Psychology, 94*, 1048-1057.
- Smith, J. E., von Rueben, C. R., Van Vugt, M., Fichtel, C., & Kappeler, P. M. (2021). An Evolutionary Explanation for the Female Leadership Paradox. *Frontiers in Ecology and Evolution, 12*, 468-481.
- Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review, 36*(2), pp. 381–403.
- Stogdill, R. M. (1974). *Handbook of Leadership: A survey of the literature*. New York: Free Press.
- Strinić, A., Carlsson, M., & Agerström, J. (2021). Occupational stereotypes: professionals' warmth and competence perceptions of occupations. *Personnel Review, 41*(1), 1-15.
- Sumter, S. R., Bokhorst, C. L., Miers, A. C., Van Pelt, J., & Westenberg, P. M. (2010). Age and puberty differences in stress responses during a public speaking task: do adolescents grow more sensitive to social evaluation? *Psychoneuroendocrinology, 35*(10), 1510-1516.
- Tajfel, H., & Turner, J. (1986). The social identity of intergroup behavior. In S. Worchel, & W. Austin, *Psychology and intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.
- Tskhay, K. O., & Rule, N. O. (2014). Perceptions of personality in text-based media and OSN: a meta-analysis. *Journal of Research in Personality, 49*, 25-30.
- Turner, J. (1982). Toward a cognitive definition of the group. In H. Tajfel (Ed.), *Social identity and intergroup*. Cambridge: Cambridge University Press.
- van Knippenberg, B., & van Knippenberg, D. (2005). Leader self-sacrifice and leadership effectiveness: The moderating role of leader prototypicality. *Journal of Applied Psychology, 90*, 25-37.
- Visser, M. (2011). *The Female Leadership Paradox*. Palgrave Macmillan.
- Willemsen, T. M. (2002). Gender typing of the Successful Manager – A Stereotype Reconsidered. *Sex Roles, 46*, 385-391.
- Wojciszke, B. (1998). On the dominance of moral categories in impression formation. *Personnel Social Psychological Bulletin, 24*, 1245–1257.
- Wojciszke, B. (2005a). Affective concomitants of information on morality and competence. *European Journal of Psychology, 10*, 60–70.
- Wojciszke, B. (2005b). Morality and competence in person and self perception. *European Review of Social Psychology, 16*, 155–188.
- Wojciszke, B., Abele, A. E., & Barylan, W. (2009). Two dimensions of interpersonal attitudes: Liking depends on communion, respect depends on agency. *European Journal of Social Psychology, 39*(6), 973-990.
- Yukl, G. (2005). *Leadership in organizations*. New York: Prentice Hall.

- Yulk, G. (1971). Toward a behavioral theory of leadership. *Organizational Behavior and Human Performance*, 6(4), 414-440.
- Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of consumer research*, 37(2), 197-206.

Appendices

Appendix 1, Regression table hypothesis 2

Results of regression analyses with PROCESS macro, perceiver leadership potential

Variable	Model 1				
	Coefficient	SE	t	95% confidence interval	
				LLCI	ULCI
Age	-.01	.02	-.34	-.05	.03
Gender	.16*	.06	2.49	.03	.29
Perceiver preference	.04	.05	.86	-.06	.15
Main effect					
(constant)	1.51**	.49	3.02	.52	2.49
Target preference	-.37***	.08	-4.36	-.55	-.2
Agency	.30***	.04	7.07	.22	.39
Communality	-.79**	.03	-5.6	-.49	-.15
Mediator					
Agency	.14	.03		.08	.22
Communality	-.07	.04		-.33	-.06
R ²	.29***				
F	.26				

Dependent variable: communality. N = 255. Unstandardized regression coefficients are *p<.05. **p<.01. *** p<.001.

Table 14

Appendix 2, Regression tables hypotheses 5 & 6

Results of regression analyses with PROCESS macro, facilitation (agency, communality, gender preference) (Hayes, 2021)

Variable	Model 1, hypothesis 5 & 6, facilitation x gender					Model 2, hypothesis 5 & 6, facilitation x preference				
	Coefficient	SE	t	95% confidence interval		Coefficient	SE	t	95% confidence interval	
				LLCI	ULCI				LLCI	ULCI
Age	.01	.01	.29	-.01	.01	.01	.01	.29	-.01	.01
Main effect (constant)	1.91***	.28	6.66	1.34	2.47	1.91***	.28	6.66	1.34	2.47
Leader preference (LP)										
m_low	-.22*	.11	-1.97	-.44	-.01	-.22*	.11	-1.97	-.44	-.01
f_low	-.20	.11	-1.81	-.42	.01	-.20	.11	-1.81	-.42	.01
x_high	-.71***	.12	-5.83	-.95	-.47	-.71***	.12	-5.83	-.95	-.47
m_high	-.77***	.11	-6.63	-.99	-.54	-.77***	.11	-6.63	-.99	-.54
f_high	-.67***	.11	-5.89	-.89	-.44	-.67***	.11	-5.89	-.89	-.44
Agency (AG)	.1**	.04	2.43	.02	.19	.1**	.04	2.43	.02	.19
Communality (CO)	.28***	.03	7.97	.21	.34	.28***	.03	7.97	.21	.34
Mediators (at values of the moderator)										
AG										
m_low										
Male	.01	.04		-.08	.1					
Female	.02	.02		-.01	.08					
-1SD						-.02	.03		-.1	.01
Mean						.01	.02		-.02	.05
+1SD						.05	.03		.01	.13
Moderated mediation	.02	.04		-.07	.12	.05	.03		.01	.13
f_low										
Male	-.02	.03		-.09	.03					
Female	.01	.02		-.03	.06					
-1SD						-.02	.03		-.1	.01
Mean						-.01	.01		-.04	.03
+1SD						.02	.02		-.01	.08
Moderated mediation	.03	.04		-.03	.12	.03	.02		-.01	.1
x_high										
Male	.03	.03		-.01	.11					
Female	.04	.03		-.01	.1					
-1SD						.01	.02		-.03	.06
Mean						.04	.02		.01	.1
+1SD						.06	.04		.01	.16
Moderated mediation	.01	.03		-.07	.08	.03	.03		-.01	.01
m_high										
Male	.05	.04		-.01	.15					
Female	.04	.02		-.01	.1					
-1SD						.01	.02		-.03	.05
Mean						.04	.02		.01	.09
+1SD						.07	.04		.01	.17
Moderated mediation	-.01	.04		-.1	.05	.04	.03		-.01	.11
f_high										
Male	.03	.04		-.02	.14					
Female	.04	.03		.01	.11					
-1SD						-.01	.02		-.06	.04
Mean						.04	.02		.01	.09
+1SD						.08	.04		.01	.18
Moderated mediation	.01	.04		-.08	.08	.06	.03		.01	.14
CO										
m_low										
Male	-.17	.11		-.41	.02					
Female	-.03	.06		-.16	.09					
-1SD						-.23	.08		-.41	-.07
Mean						-.08	.05		-.19	.01
+1SD						-.05	.07		-.07	.2
Moderated mediation	.14	.12		-.01	.4	.19	.07		.05	.35
f_low										
Male	-.07	.09		-.28	.09					
Female	-.01	.06		-.13	.12					
-1SD						-.12	.08		-.29	.02
Mean						-.04	.05		-.15	.06
+1SD						.04	.06		-.08	.17
Moderated mediation	.07	.11		-.14	.31	.11	.06		-.01	.25
x_high										
Male	-.38	.09		-.58	-.21					
Female	-.3	.09		-.49	-.13					
-1SD						-.42	.09		-.62	-.25
Mean						-.35	.07		-.51	-.21
+1SD						-.28	.09		-.48	-.1
Moderated mediation	.08	.11		-.13	.31	.09	.07		-.05	.24
m_high										
Male	-.22	.08		-.39	-.04					
Female	-.37	.08		-.55	-.22					
-1SD						-.44	.09		-.65	-.27
Mean						-.35	.06		-.49	-.22
+1SD						-.25	.07		-.41	-.1
Moderated mediation	-.15	.1		-.39	.04	.12	.07		.01	.28
f_high										
Male	-.28	.07		-.42	-.15					
Female	-.28	.08		-.47	-.13					
-1SD						-.45	.09		-.66	-.27
Mean						-.3	.06		-.44	-.17
+1SD						-.14	.06		-.28	-.02
Moderated mediation	-.01	.09		-.19	.17	.2	.06		.08	.34
Adjusted R ²	.51***					.51***				
F	36.88					36.88				

Dependent variable: Facilitation. N = 286. Unstandardized regression coefficients are reported.

*p<.05. **p<.01. *** p<.001.

Table 15

Results of regression analyses with PROCESS macro, harm (agency, communality, gender preference) (Hayes, 2021)

Variable	Model 1, hypothesis 5 & 6, harm x gender					Model 2, hypothesis 5 & 6, harm x preference				
	Coefficient	SE	t	95% confidence interval		Coefficient	SE	t	95% confidence interval	
				LLCI	ULCI				LLCI	ULCI
Age	.01	.01	1.3	.01	.02	.01	.01	1.3	.01	.02
Main effect										
(constant)	3.36***	.34	9.68	2.67	4.04	3.36***	.34	9.68	2.67	4.04
Leader preference (LP)										
m_low	.02	.13	.17	-.24	.29	.02	.13	.17	-.24	.29
f_low	.21	.13	1.6	-.04	.48	.21	.13	1.6	-.04	.48
x_high	.4**	.14	2.74	.11	.69	.4**	.14	2.74	.11	.69
m_high	.5***	.14	3.6	.22	.78	.5***	.14	3.6	.22	.78
f_high	.38**	.13	2.77	.11	.65	.38**	.13	2.77	.11	.65
Agency (AG)	-.12**	.05	-2.31	-.22	-.01	-.12**	.05	-2.31	-.22	-.01
Communitiy (CO)	-.19***	.04	-4.68	-.28	-.11	-.19***	.04	-4.68	-.28	-.11
Mediators (at values of the moderator)										
AG										
m_low										
Male	-.01	.05		-.11	.09					
Female	-.03	.02		-.08	.01					
-1SD						.03	.03		-.02	.12
Mean						-.01	.02		-.05	.02
+1SD						-.06	.03		-.14	-.01
Moderated mediation	-.02	.05		-.14	.09	-.06	.04		-.17	-.01
f_low										
Male	.02	.03		-.03	.1					
Female	-.01	.02		-.06	.04					
-1SD						.03	.03		-.02	.12
Mean						.01	.02		-.03	.05
+1SD						-.02	.02		-.08	.01
Moderated mediation	-.04	.04		-.13	.04	-.04	.03		-.12	.01
x_high										
Male	-.04	.03		-.13	.01					
Female	-.04	.03		-.11	.01					
-1SD						-.01	.02		-.07	.04
Mean						-.04	.02		-.11	.01
+1SD						-.08	.04		-.19	-.01
Moderated mediation	-.01	.04		-.08	.09	-.04	.03		-.13	.01
m_high										
Male	-.06	.04		-.17	.01					
Female	-.04	.03		-.11	.01					
-1SD						-.01	.02		-.06	.03
Mean						-.04	.02		-.11	-.01
+1SD						-.08	.04		-.19	-.01
Moderated mediation	.01	.04		-.07	.11	-.04	.03		-.13	.01
f_high										
Male	-.04	.04		-.14	.03					
Female	-.05	.03		-.11	.01					
-1SD						.01	.03		-.05	.08
Mean						-.04	.02		-.1	-.01
+1SD						-.09	.05		-.21	-.01
Moderated mediation	-.01	.04		-.11	.09	-.07	.04		-.17	-.01
CO										
m_low										
Male	.12	.08		-.02	.3					
Female	.02	.04		-.07	.12					
-1SD						.16	.06		.05	.31
Mean						.06	.03		-.01	.14
+1SD						-.04	.05		-.15	.05
Moderated mediation	-.1	.09		-.31	.07	-.14	.06		-.28	-.03
f_low										
Male	.05	.06		-.06	.2					
Female	.01	.04		-.09	.1					
-1SD						.08	.06		-.01	.22
Mean						.02	.04		-.04	.11
+1SD						-.02	.04		-.13	.05
Moderated mediation	-.05	.08		-.23	.09	-.07	.05		-.19	.01
x_high										
Male	.27	.08		.12	.46					
Female	.21	.07		.07	.39					
-1SD						.29	.09		.13	.5
Mean						.25	.07		.12	.4
+1SD						.2	.07		.06	.37
Moderated mediation	-.05	.08		-.23	.09	-.06	.05		-.2	.03
m_high										
Male	.15	.07		.03	.32					
Female	.26	.07		.13	.43					
-1SD						.32	.09		.15	.51
Mean						.25	.06		.12	.39
+1SD						.18	.06		.06	.32
Moderated mediation	.1	.07		-.03	.27	-.09	.05		-.2	.01
f_high										
Male	.2	.06		.08	.34					
Female	.2	.07		.08	.36					
-1SD						.32	.09		.15	.52
Mean						.21	.06		.1	.34
+1SD						.1	.04		.01	.2
Moderated mediation	.01	.06		-.14	.13	-.14	.05		-.27	-.05
Adjusted R ²	.26***					.26***				
F	12.32					12.32				

Dependent variable: Facilitation. N = 286. Unstandardized regression coefficients are reported.
*p<.05. **p<.01. *** p<.001.

Table 16

Appendix 3, Regression tables additional analysis

Results of regression analyses with PROCESS macro, facilitation (agency, communality)
(Hayes, 2021)

Variable	Additional analysis facilitation				
	Coefficient	SE	t	95% confidence interval	
				LLCI	ULCI
Age	.01	.01	.29	-.01	.01
Main effect					
(constant)	1.91***	.28	6.66	1.34	2.47
Leader preference (LP)					
m_low	-.22*	.11	-1.97	-.44	-.01
f_low	-.2	.11	-1.81	-.42	.01
x_high	-.71***	.12	-5.83	-.95	-.47
m_high	-.77***	.11	-6.63	-.99	-.54
f_high	-.67***	.11	-5.89	-.89	-.44
Communality (CO)	.28***	.03	7.97	.21	.34
Agency (AG)	.1**	.04	2.43	.02	.19
Mediators					
CO					
m_low	-.06	.05		-.17	.04
f_low	-.03	.05		-.14	.07
x_high	-.34	.07		-.49	-.20
m_high	-.34	.06		-.49	-.21
f_high	-.28	.07		-.43	-.15
AG					
m_low	.02	.02		-.01	.07
f_low	.01	.01		-.02	.03
x_high	.07	.03		.01	.16
m_high	.08	.04		.01	.17
f_high	.07	.04		.01	.16
CO+AG					
m_low	-.01	.01		-.02	.01
f_low	-.01	.01		-.02	.01
x_high	-.03	.01		-.08	-.01
m_high	-.04	.02		-.08	-.01
f_high	-.03	.01		-.07	-.01
Adjusted R ²	.51***				
F	36.88				

*p<.05. **p<.01. *** p<.001.

Dependent variable: Facilitation. N = 286. Unstandardized regression coefficients are reported.

Table 17

Results of regression analyses with PROCESS macro, harm (agency, communality)
(Hayes, 2021)

Variable	Additional analysis harm				
	Coefficient	SE	t	95% confidence interval	
				LLCI	ULCI
Age	.01	.01	1.3	-.01	.02
Main effect					
(constant)	3.36***	.34	9.68	2.67	4.04
Leader preference (LP)					
m_low	.02	.13	.17	-.24	.29
f_low	.21	.13	1.6	-.04	.48
x_high	.4**	.14	2.74	.11	.69
m_high	.5***	.14	3.6	.22	.78
f_high	.38**	.13	2.77	.11	.65
Communality (CO)					
Agency (AG)	-.12**	.05	-2.31	-.22	-.01
Mediators					
CO					
m_low	.04	.04		-.03	.13
f_low	.02	.04		-.05	.1
x_high	.24	.07		.11	.39
m_high	.24	.06		.12	.39
f_high	.2	.06		.09	.34
AG					
m_low	-.03	.02		-.08	.01
f_low	-.01	.01		-.03	.03
x_high	-.09	.04		-.17	-.01
m_high	-.09	.04		-.18	-.01
f_high	-.08	.04		-.17	-.01
CO+AG					
m_low	.01	.01		-.01	.02
f_low	.01	.01		-.01	.02
x_high	.04	.02		.01	.09
m_high	.04	.02		.01	.09
f_high	.03	.01		.01	.08
Adjusted R ²	.26***				
F	12.32				

*p<.05. **p<.01. *** p<.001.

Dependent variable: Harm. N = 286. Unstandardized regression coefficients are reported.

Table 18