Leadership Styles and Leader Well-Being: A Mediation Study

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Abstract

Studies examining the effects of leadership styles on leader well-being have, in the past decade, increased in number. However, up until now, mechanisms mediating these relationships have been largely ignored. Thus, the main objective of the present study was to investigate whether subordinate functioning, in the form of follower OCB, performance, and bullying, would act as either a job demand or a resource for leaders, depending on the positive or negative valence of the follower behaviour, and thus influence the effects of leadership styles on leader well-being related outcomes. A total of 346 participants in supervisory roles, primarily recruited through the crowdsourcing platform MTurk, filled out an online questionnaire containing 146 questions related to leadership styles, subordinate functioning, and well-being at work. The data was analysed using the logistic regression PROCESS macro for SPSS. Results indicated that subordinate functioning did, in fact, demonstrate mediation in many of the relationships between leadership styles and leader well-being, and that the JD-R model could serve as a useful tool in explaining these mediations. Although further studies are needed to fully understand the relationships between leadership styles and leader well-being, the present study not only provides a springboard for identifying mediating mechanisms in future studies, but also provides some promising findings. Thus, future studies should focus on replicating the present findings as well as identifying other mediating mechanisms in the relationship between leadership styles and leader well-being to form a more holistic understanding of the consequences of leadership – for the benefit of organisational interventions and leadership training.

Leadership Styles and Leader Well-Being: A Mediation Study

Introduction

Since Thomas Carlyle's (1841) rather static *Great Man Theory*, in which leaders were seen as superior, inspirational, and heroic *men* who were born to lead the masses, leadership theory has developed substantially from being a construct contained in a vacuum to a changeable and adaptable multi-faceted concept. The 20th century saw the birth of several leadership theories, starting with Lewin, Lippitt, and White's (1939) scientific experiments aimed at establishing different leadership styles. Through *Patterns of Aggressive Behavior in Experimentally Created Social Climates* (Lewin et al., 1939)*,* the research team postulated that there were two main types of leaders: *Democratic* and *autocratic*. Whereas the democratic leader was described as someone who was inclusive, participative, and who encouraged group discussions – indeed, the term *democracy* derives from the Greek word *dēmokratía,* which simply means *rule by the people* (Dahl, 2019) – the autocratic leader was considered to be dominating his/her followers in terms of dictating their approaches to work tasks and not including them in decision-making. The research team also included a third type of leadership, namely *laissez-faire*, which they described as more of a condition in which the person who was meant to lead his/her followers was uninvolved with the group and left all decision-making to the followers. The experiments involved observing levels of aggression in 10-year-old schoolboys under the supervision of adults who took on the different supervisory roles. Results indicated that an autocratic leadership style fostered more aggression than the democratic and laissez-faire styles, and the researchers concluded that the democratic approach to leadership was the most effective in terms of follower performance (Lewin et al., 1939). However, the simplicity and lack of a theoretical framework behind the work of Lewin and his colleagues, inspired researchers to further investigate the functionality, antecedents and consequences of leader behaviour and, consequently, several theories emerged – encompassing personality traits, attitudes and behaviour, social cognition, contingency, social exchange, gender, teams, and transformation, to name a few (for an informative recollection of leadership development post World War II, see Lord, Day, Zaccaro, Avolio, & Eagly, 2017).

Fast forward to several decades later, theories on leadership styles are in abundance. Nevertheless, despite the different approaches to studying leadership, the assumption that leaders affect followers, organisations, and even society as a whole through their style of leadership, is arguably the same. Interestingly, the consequences of leader behaviour that leaders face themselves is often less investigated. Therefore, the present study goes beyond well-established findings of how leadership styles affect their surroundings and instead argues that leaders' behaviour not only affect others, but also leaders' own well-being and functioning. Indeed, the last decade has seen an increase in studies investigating these relationships, although factors mediating the relationships between

leadership styles and leader outcomes remain largely uninvestigated. However, the present thesis argues that the effect leadership styles have on *subordinate behaviour* in turn affects the well-being of leaders, meaning that subordinate behaviour acts as a mediator in the relationship between leadership styles and leader outcomes. In the next sections, a foundation for a subsequent quantitative study will be made by briefly describing five well-established leadership styles and their relationships with follower functioning, followed by reviewing studies on leadership styles and leader well-being. Figure 1 depicts a simple test-model for the direct and indirect relationships between leadership styles and leader well-being.

Figure 1. Simplified model depicting direct and indirect relationships between leadership styles and leader well-being.

Leadership Styles, Follower Functioning, and Leader Well-Being

Today, although several leadership styles have been identified, many scholars tend to differentiate between *constructive* and *destructive* leadership styles as two very broad categories of leadership (e.g. Collins & Jackson, 2015; Einarsen, Aasland, & Skogstad, 2007; Kaluza, Boer, Buengler, & van Dick, In press). Although there are many examples of destructive and constructive leadership styles, including them all is beyond the scope of this thesis. Hence, as a starting point, the present author has chosen to focus on five well-known and often-studied leadership styles. Figure 2 illustrates the leadership styles included in the study.
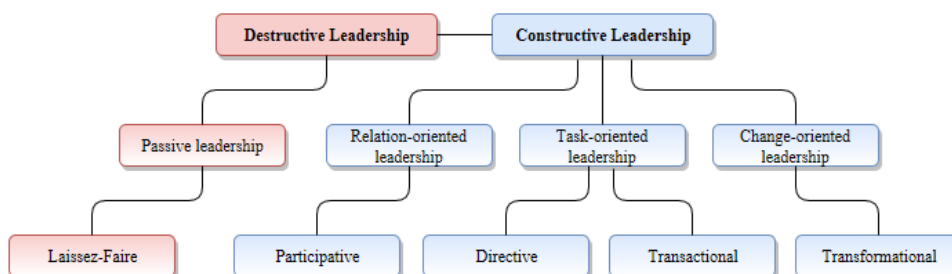

Figure 2. Overview of destructive and constructive leadership styles

Constructive leadership and subordinate functioning

Simply put, constructive leadership entails leader behaviour that is pro-organisation and pro-follower oriented, which generally leads to positive follower outcomes (e.g. Bass, 1990; Collins & Jackson, 2015; Einarsen, et al., 2007). Examples of constructive leadership includes change-oriented, task-oriented, and relation-oriented leadership (Kaluza et al., in press).

Relation-oriented leaders display behaviours that enhance followers' commitment to common goals, identification with the department and/ or organisation, skills, and relationship with their leader through offering support and individual consideration in both work and personal matters, recognising and showing appreciation for positive work contributions, and facilitating follower development (Yukl, 2012) and conflict management (Bass & Bass, 2008). Participative (also known as democratic) leadership falls into the relation-oriented leadership category, with one of the most prominent characteristics being the inclusion of followers in decision-making processes by encouraging group discussions (Lewin, et al., 1939) and taking followers' suggestions and opinions into consideration when making decisions (Yukl, 1989).

Meanwhile, task-oriented leadership concerns behaviour that primarily focuses on stimulating followers "to get the job done" efficiently. Task-oriented leaders plan the work activities – in terms of content, approach, timing, and whom is to execute each task – and clarifies work roles by clearly communicating plans, responsibilities, policies, goals, expectations and requirements. Additionally, these leaders are performance-oriented and thus keep a close watch on processes and individual follower contribution (Havig, Skogstad, Kjekshus, & Romøren, 2011). Two examples of task-oriented leadership include directive and transactional leadership. Although these approaches to leadership share a considerable amount of variance, they are conceptually different. What sets them apart is that directive leadership is more rigid and is characterised by a one-way approach in which the leader dictates in detail how tasks should be solved. Meanwhile, transactional leadership is characterised by a two-way approach and is largely operationalised using contingent rewards. Contingent rewards refer to the exchanges of effort and performance by followers and rewards and recognition by the leader, hence the name *transactional*. The rewards offered by the leader are subject to change (contingent) based on the followers' achievements and can also involve forms of punishment for insufficient follower performance according to the leader's expectations (Bass, 1990; Bass & Stogdill, 1990).

A third leadership category that falls under the constructive leadership domain is change-oriented leadership. Leaders' change-oriented behaviour includes the ability to formulate an inspiring vision for a prosperous future, stimulate innovative and creative thinking in followers, monitoring and identifying opportunities and threats in the external environment, and taking chances in change-processes (Yukl, Gordon, & Taber, 2002). Transformational leadership is by far the most researched change-oriented leadership style and has been described as a mutually influential interaction between

leader and follower that raise the levels of motivation and morality (Downton, 1973). Indeed, a transformational leader inspires, motivates, empowers, and stimulates creativity, personal development and morale in their followers (Bass, 1999), and transformational behaviour is thus strongly associated with positive follower outcomes.

Although relation-oriented, task-oriented, and change-oriented leadership are conceptually different, they all fall into the constructive leadership category (e.g. Kaluza et al., in press; Yukl et al., 2002) – meaning that they generally share two common interests, namely reaching the goals of the organisation and simultaneously benefit followers (Kaluza et al., in press). This is achieved through nurturing subordinate functioning (behaviour-related follower outcomes) in terms of, for instance, organisational citizenship behaviour (e.g. Bhatti, et al., 2019) Wang, Law, Hackett, Wang, & Che, 2005), performance (e.g. Judge, Piccolo, & Ilies, 2004; Wang et al., 2005), positive interpersonal behaviour (e.g. Bentley et al., 2012; Cooper-Thomas et al., 2013; Ertureten, Cemalcilar, & Aycan, 2013; Skogstad, Einarsen, Torsheim, Aasland, & Hetland, 2007), and motivation (e.g. Judge et al., 2004). Thus, the following hypothesis is generated with regards to constructive leadership and subordinate functioning for the present study:

Hypothesis 1a Constructive leadership styles have a positive effect on positive follower functioning, and negative effect on negative follower functioning.

Destructive leadership and subordinate functioning

In contrast to constructive leadership, destructive leadership involves leader behaviour which has detrimental effects on the organsiation and/or followers. It should be noted that scholars tend to disagree on which leader behaviours constitute destructive leadership. For instance, Krasikova, Green, and LeBreton (2013) argue that unintentionally harmful behaviour that is a result of an ineffective style of leadership (e.g. laissez-faire), does not constitute destructive leadership because such behaviour does not reflect a leader's *choice* to lead subordinates towards detrimental organizational or follower consequences. However, the present author argues, in line with Einarsen et al. (2007) and Skogstad et al. (2007), that any form of leader behaviour that is persistent and has negative consequences for the organisation and/or followers, constitute destructive leadership. Thus, the present thesis adheres to Einarsen et al.'s (2007) defininition of destructive leadership: "*The systematic and repeated behaviour by a leader, supervisor or manager that violates the legitimate interest of the organisation by undermining and/or sabotaging the organisation's goals, tasks, resources, and effectiveness and/or the motivation, well-being or job satisfaction of subordinates.*" (p. 208).

Destructive leadership takes many forms – from tyrannical behaviour directed towards followers, derailed behaviour in relation to both the organization and followers, and disloyalty towards the organsiation, to passive and uninvolving behaviour that harms both the organsiation and workers (Einarsen et al., 2007). However, because the present thesis mainly concerns constructive behaviours, only laissez-faire leadership is included here – primarily to provide a useful comparison with constructive behaviour and its consequences for leader well-being.

Laissez-faire leadership can be described as a passive and inactive form of leadership where supervision and decision-making by the leader is more or less non-existent, and subordinates are left to manage themselves (Den Hartog, Van Muijen, & Koopman, 1997). Laissez-faire leadership has mostly been scrutinised for being counter-productive in that it leads to follower demotivation and stress (e.g. Kelloway, Sivanthan, Francis, & Barling, 2005; Skogstad et al., 2007), facilitates role conflict and bullying in the workplace due to a lack of involvement and sufficient leadership (e.g. Skogstad et al., 2007), and undermines the organisation's interest in terms of, for instance, effectiveness and goals (Einarsen et al., 2007). Hence, in line with the literature on laissez-faire leadership, the following hypothesis is formed for the present study (see Figure 3):

Hypothesis 1b Laissez-faire (destructive) leadership has a positive effect on negative follower functioning, and negative effect on positive follower functioning.

Follower Functioning and leader well-being

The main goal of the present study is to investigate factors that mediate the relationships between leaders' style of leadership and leader well-being. Although it is natural to assume that many factors plays a part in this process as accounted for in a number of theoretical areas – such as affect, resource, appraisal, fit, and self-determination theories (Kaluza et al., in press) – examining all possible mediating factors is beyond the scope of the present study. However, considering studies have found ample evidence that leadership styles are relatively strongly associated with follower outcomes, including functioning, it seems natural to assume that this also affects leaders in turn. For instance, the notion of *emotion contagion,* which can be described as *"...a process in which a person or group influences the emotions or behavior of another person or group through the conscious or unconscious induction of emotion states and behavioral attitudes."* (Schoenewolf, 1990, p. 50), supports this idea in that if a leader surrounds him/herself with subordinates who have a positive work attitude and perform well, one could expect a positive effect on the leader's work-related wellbeing. But from a slightly different angle, and perhaps even more relevant, is the concept of job demands and resources. An often-used model in this respect is the Job Demands – Resources (JD-R) model. The JD-R model

was initially developed to explain antecedents of burnout in workers and holds that work factors which affect a person's work situation can be grouped into two wide-ranging categories, namely *job demands* and *resources* (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). *"Job demands refer to those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs…"* (Demerouti et al., 2001, p. 501), for instance in terms of work pressure and emotionally draining social interactions (Bakker & Demerouti, 2017), whereas resources refer to all aspects of a job that either help the worker achieve work goals, reduce the psychological and/or physiological costs associated with job demands, or foster personal development and growth (Demerouti et al., 2001), such as autonomy and performance-feedback (Bakker & Demerouti, 2017).

Demerouti et al. (2001) postulated that job demands- and resources cause two divergent psychological processes: A health-impairment process in which job demands deplete workers' physical and psychological resources and thereby lead to lower levels of energy; and a motivational process in which workers' mental needs are satisfied and thereby leads to work motivation. Furthermore, *the buffer hypothesis*, which was introduced several years later, holds that the consequences of job demands on workers' health, can be buffered by access to job resources (Bakker & Demerouti, 2017). Now, nearly two decades later, the JD-R theory provides an encompassing framework to explain positive and negative consequences of work-related factors, for instance in terms of engagement, burnout, performance, job satisfaction, and physical and psychological health (Bakker & Demerouti, 2017), as well as providing a useful context for generating hypotheses for the present study. Specifically, the present author argues that aspects of subordinate functioning can be interpreted as either a job demand or a resource by leaders, depending on the positive or negative valence of subordinate functioning. For instance, if follower performance is low, this will function as a negatively charged job demand for the leader, whereas high follower performance will function as a resource. Therefore, the present author proposes the following hypotheses:

Hypothesis 2a   High levels of positive follower functioning is associated with high levels of positive leader outcomes and low levels of negative leader outcomes.

Hypothesis 2b   High levels of negative follower functioning is associated with low levels of positive leader outcomes and high levels of negative leader outcomes.

Leadership styles and leader well-being

Research on leadership styles has, up until now, largely focused on the relationships between leadership styles and follower outcomes. Although the last decade has seen an emergence of studies

on the relationships between leadership styles and leader outcomes, studies investigating these relationships are still scarce and largely dominated by Bass' (1985) theory on transactional, transformational, and laissez-faire leadership. However, in a recent meta-analysis, Kaluza et al. (in press) incorporated data from both published and unpublished studies and found evidence of significant relationships between destructive and constructive leadership and leader well-being. Constructive leadership styles were found to be positively related to positive leader well-being, with relation-oriented and change-oriented leadership being associated with higher levels of positive leader well-being as compared to task-oriented (e.g. directive, transactional) leadership. Furthermore, relation-oriented and change-oriented leadership were negatively associated with negative well-being, whereas no significant associations between task-oriented leadership and negative well-being was found. Meanwhile, destructive leadership in the form of passive leadership (including laissez-faire) was found to be negatively associated with positive well-being, and positively associated with negative well-being in leaders. For the present study, based on the findings mentioned above, several hypotheses have been formed (see Figure 3):

Hypothesis 3a   Constructive leadership styles have a positive direct effect on positive leader outcomes

Hypothesis 3b   Transformational (change-oriented) and participative (relation-oriented) leadership styles have a direct, negative effect on negative leader outcomes

Hypothesis 3c   Transactional and directive (task-oriented) leadership styles do not have a direct effect on negative leader outcomes

Hypothesis 3d   Laissez-faire (destructive) leadership has a direct, negative effect on positive leader outcomes and positive effect on negative leader outcomes

Mediation

Now, having formed three sets of hypotheses regarding effects of leadership styles on subordinate functioning, subordinate functioning on leader outcomes, and leadership styles on leader outcomes, hypotheses regarding indirect effects can be made. Figure 3 illustrates the full hypothesised model.

Hypothesis 4a   Follower functioning mediates the relationships between constructive leadership styles and positive leader outcomes

Hypothesis 4b Follower functioning mediates the relationships between transformational and participative leadership and negative leader outcomes

Hypothesis 4c Follower functioning mediates the relationships between laissez-faire leadership and positive and negative leader outcomes
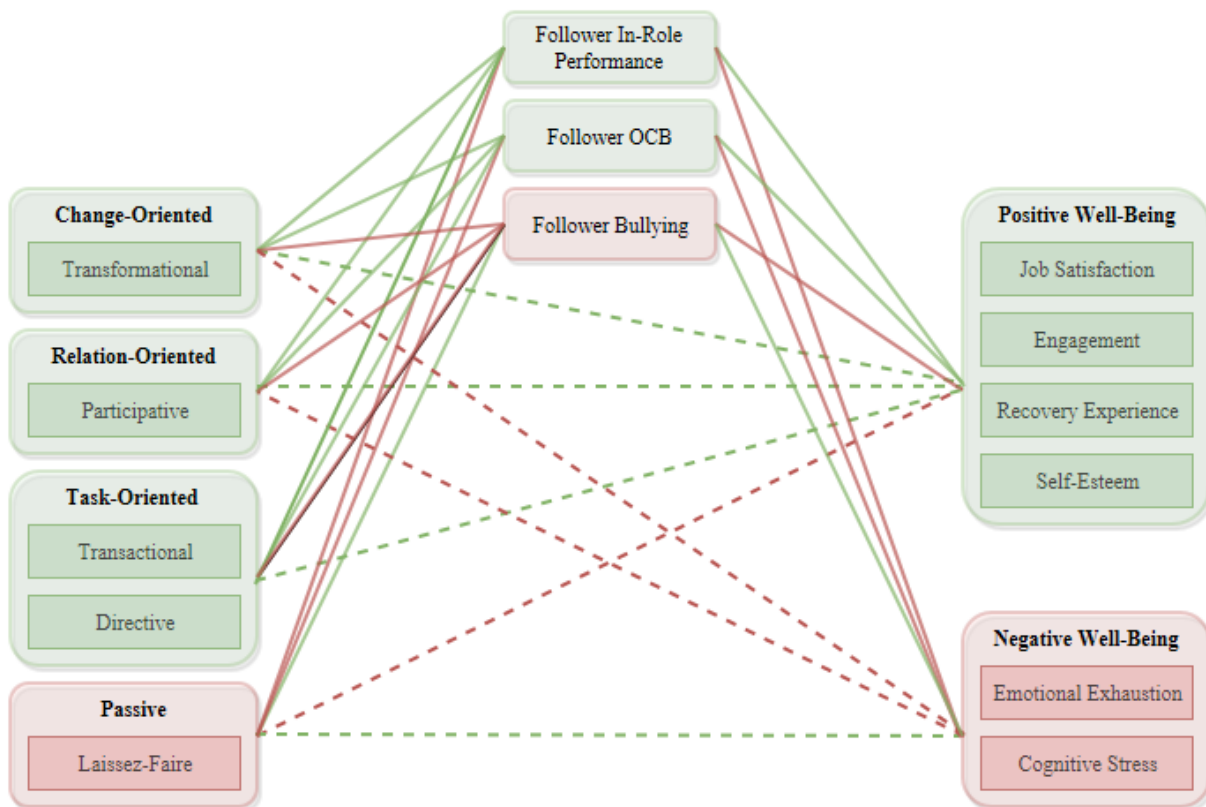
Figure 3. Hypothesised direct and indirect relationships between leadership styles and leader well-being. Stippled lines indicate direct relationships. Red lines indicate negative mediating effects and green lines indicate positive mediating effects.

Method

Participants and Data Collection Procedure

The minority of participants (14%) in the present study were recruited through personal messages via social media and email on a non-compensation basis, whereas the majority (86%) were recruited through Amazon Mechanical Turk (MTurk). MTurk is an online marketplace in which businesses, researchers, and the like can recruit participants to complete various web-based assignments in

exchange for financial compensation (FAQs, 2019). For the present study, participants were rewarded with $0.05 for enlisting for participation. However, fully qualifying candidates who completed the survey to a satisfactory standard, received an additional bonus of $0.95.

MTurk is generally considered an effective and reliable tool in the recruitment of participants for scientific studies, as long as measures are taken to "filter out" unreliable responses – such as including screening questions to secure truly qualified candidates, and including reverse-worded and/or trap questions (e.g. Sheehan, 2017; see also e.g. Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2013). Thus, the present study included two screening questions: "Are you in full-time employment?" (yes/no answer); and "Do you supervise other employees?" (response-alternatives included "No", "Yes, less than three", "Yes, three or more", "Yes, 10 or more", "Yes, 30 or more", "Yes, 50 or more", and "Yes, 100 or more"). Because the aim of the study was to capture responses from people whose jobs were to lead others on a regular basis, only full-time leaders/ managers who supervised at least three subordinates qualified for participation in the study. The inclusion of these two screening questions resulted in 412 out of 1083 (38%) qualified candidates for completion of the survey. However, further steps were taken to secure reliable data through reverse-score questions, as well as implementing one "trap-question" towards the beginning of the questionnaire, and one towards the end of the questionnaire: "For validation purposes, please select 'not at all'; and "For validation purposes, please select 'disagree'. These steps resulted in the disqualification of 66 participants, leaving a total of 346 reliable responses.

Of the 347 participants, 52.9% were female (47.1% male), 48.8% were between the ages of 31 – 40 (18 – 30 = 24.9%; >41 = 26.3%;), and 81.5% worked in the USA (Europe = 14.6%; other countries = 3.9%). In terms of education and work, 58.4% had obtained a bachelor's degree (master's degree or higher = 20.5%), 34.4% had had their jobs for 4 – 6 years (<1 year = 4%; 1 – 3 years = 30.1%; 7-10 years = 15.9%; >11 years = 15.6%), and 66.8% worked in the private (for profit) sector (private, not for profit = 7.5%; public, for profit = 13%; public, not for profit = 12.1%).

Measurements

Leadership styles

Transformational, transactional, and laissez-faire leadership were measured using the Multifactor Leadership Questionnaire – Short Form 6S (MLQ – 6S; Bass & Avolio, 1992). The MLQ-6S consists of 21 items – 12 items measuring transformational leadership, 6 items measuring transactional leadership, and 3 items measuring laissez faire leadership. Examples of questions include "I enable others to think about old problems in new ways" (transformational leadership), "I am satisfied when

others meet agreed-upon standards" (transactional leadership), and "I ask no more of others than what is absolutely essential" (laissez-faire leadership). Responses were given on a 1 – 5 Likert scale (1 = Not at all; 2 = Once in a while; 3 = Sometimes; 4 = Fairly often; 5 = Frequently, if not always). However, a factor analysis of the 21 items revealed that item 13 that ought to measure transactional leadership ("As long as things are working, I do not try to change anything"), only loaded onto the laissez-faire scale. Therefore, it was deleted from the scale measuring transactional leadership and instead added to the laissez-faire scale as conceptually it would seem to fit that dimension well.

Directive and participative leadership were measured using two scales of Cook, Hepworth, Wall, and Warr's (1981) Leader Behavior Description Questionnaire - Version 12 (LBDQ XII). Seven items measure directive leadership, whereas five items measure participative leadership. Questions include "I make my attitude clear to employees" (directive leadership) and "I encourage employees to participate in important decisions" (participative leadership). However, results from the factor analysis of the scales resulted in the removal of one item from the directive leadership scale, namely "I try out my ideas on employees", hence resulted in six items measuring directive leadership. Responses were given on a 1 – 5 Likert scale (1 = Not at all; 2 = Once in a while; 3 = Sometimes; 4 = Fairly often; 5 = Frequently, if not always).

Follower functioning

Collective in-role performance was measured using Bartram and Casimir's (2006) in-role performance measure. For the purpose of the present study, the items were changed from measuring individual performance to collective performance (e.g. the item "he/she…completes his/her work by the time specified" was changed to "Please indicate what percentage of your subordinates…complete their work by the time specified"). Participants were able to provide any percentage rating ranging from 0% - 100%.

A validated scale developed by Smith, Organ, and Near (1983) was used to measure OCB. The scale consists of 16 items. As the goal of the present study was to measure collective OCB rather than individual OCB, the items were rephrased slightly: e.g. "He/she…gives advanced notice if unable to come to work" was changed to "Please indicate approximately what percentage of your subordinates... give advance notice if unable to come to work". Participants were able to provide any percentage rating ranging from 0% - 100%. Upon factor analysing the items, we discovered that the items loaded onto two factors: one measuring negative OCB; and one measuring positive OCB, and hence decided to differentiate between the two factors. As a result, 13 items loaded onto the positive OCB scale, and three items loaded onto the negative OCB scale (Appendix A).

11 out of 22 items (those relevant to leaders) from the Negative Acts Questionnaire (NAQ; Einarsen, Hoel, & Notelaers, 2009) were used to measure counter-productive behaviour in terms of victimisation and bullying at work. One example of an item included "Looking back on the past six months, please indicate how often the following has happened between co-workers in your department… Spreading of gossip and rumours". Responses were given on a 1 – 5 Likert scale (never, occasionally, monthly, weekly, daily).

Leader outcomes

The Oldenburg Burnout Inventory (OLBI; Demerouti, Bakker, Vardakou, & Kantas, 2003) was used to measure emotional exhaustion and engagement. The frequently used instrument has been found to be a valid measurement of both emotional exhaustion/vigour and engagement/disengagement – two oposites on the same continuum (Demerouti, Mostert, & Bakker, 2010). The instrument consists of 16 items, 8 which measure emotional exhaustion/vigour, and 8 items which measure disengagement/engagement. Responses were given on a 1 – 5 Likert scale ranging from "not at all" to "frequently, if not always".

Nine leader-relevant items out of 10 items from a job satisfaction questionnaire developed by Roelen, Koopmans, Notenbomer, and Groothoff (2008) were used to measure job satisfaction. The item "I am satisfied with my supervisor" was omitted. A sample item includes "I am satisfied with the amount of work I have to do". Responses were given on a 1 – 5 Likert scale ranging from "strongly disagree" to "strongly agree".

Cognitive stress was measured using the 4-item scale from the Copenhagen Psychosocial Questionnaire (COPSOQ; Kristensen & Borg, 2003). A sample item includes "How much of the time in the past 4 weeks have you… had problems concentrating?". Responses were given on a 1 – 5 Likert scale ranging from "Never/Hardly ever" to "Always".

Self-esteem was measured using the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965). A sample item includes "I feel that I have a number of good qualities". Responses were given on a 1 – 5 Likert scale ranging from "Strongly disagree" – "strongly agree".

The Recovery Experience Questionnaire (REQ; Sonnentag & Fritz, 2007) was used to measure leaders' ability to recover from work. The instrument consists of 16 items. Responses were given on a 1 – 5 Likert scale ranging from "Strongly disagree" – "Strongly agree".

Scale reliability estimates

Cronbach's alpha reliability coefficients for all included scales are presented diagonally in Table 1. With the exception of a cronbach's alpha of .60 for the laissez-faire scale, all reliability coefficients exceeded .70.

Statistical Analyses

All statistical analyses were performed using IBM Statistical Package for the Social Sciences (SPSS) 25.0. Spearman's rho correlational analysis was used to establish associations between all variables, including age, tenure, and education. The PROCESS version 3.0 macro plug-in for SPSS – a logistic regression path analysis tool developed by Hayes (2017) – was used to identify effects of independent variables on mediation variables (Path A), mediation variables on dependent variables (Path B), and direct (Path C') and indirect effects (Path C) of independent variables on dependent variables. Contrary to traditional approaches (e.g. Baron & Kenny, 1986; Sobel, 1982) of establishing significant effects in path a, b, and c' in order for there to be indirect effects of independent variables on dependent variables, modern theory suggests that this is not a necessity (e.g. Hayes, 2017; Zhao, Lynch, & Chen, 2010). PROCESS is capable of identifying mediation even if results of one or more of the three paths are insignificant. Three scales had missing data (one missing response per scale): Participative leadership; directive leadership; and job satisfaction. PROCESS automatically handles missing data by listwise deletion. PROCESS produces unstandardized results, and in line with Hayes (2017) recommendations, all data were kept unstandardized. A 95% confidence level was used across all analyses. A 5000-sample bootstrap was used for the mediation analyses, and statistical significance was established when the confidence interval did not cross zero.

Results

Descriptive statistics

Spearman's rho non-parametric correlation coefficients between all variables, as well as Chronbach's alpha reliability coefficients for the individual scales, are displayed in Table 1. As education did not correlate with any of the variables of interest, it was not included in further analyses. Age and tenure, however, did significantly correlate with several variables and were therefore included as covariates in the regression analyses. Laissez-faire leadership did not correlate with positive subordinate OCB, subordinate performance, leader job satisfaction, and leader recovery experience, however, all other correlations between leadership styles, subordinate functioning variables and leader outcomes were significant at $p < .05$.

Table 1. Correlations matrix showing Spearman's rho effect sizes between all variables. Chronbach's alpha reliability coefficients are displayed diagonally.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
1. Age																		
2. Tenure	.45**																	
3. Education	.10	.02																
4. Transformational	.10	.11*	-.04	.86														
5. Transactional	.06	.09	-.03	.70**	.73													
6. Laissez Faire	-.11*	-.02	.03	.07	.09	.60												
7. Directive	.10	.10	-.05	.56**	.68**	.00	.81											
8. Participative	.09	.12*	-.03	.42**	.37**	-.21**	.33**	.71										
9. OCB Positive	.16**	.10	.05	.31**	.26**	.05	.13*	.19**	.88									
10. OCB Negative	-.23**	-.15**	.05	-.28**	-.28**	.22**	-.26**	-.36**	-.05	.75								
11. Performance	.16**	.15**	-.04	.42**	.36**	-.04	.36**	.30**	.57**	-.38**	.88							
12. NAQ	-.10	-.11*	.02	-.28**	-.25**	.14**	-.28**	-.38**	-.25**	.47**	-.56**	.94						
13. Recovery	-.01	.03	-.10	.40**	.39**	.08	.37**	.26**	.29**	-.17**	.37**	-.27**	.86					
14. Satisfaction	.03	.09	-.06	.50**	.40**	.03	.42**	.26**	.35**	-.14**	.48**	-.36**	.36**	.88				
15. Emotional Exhaustion	-.10	-.08	.01	-.36**	-.30**	.11*	-.26**	-.27**	-.27**	.29**	-.44**	.46**	-.30**	-.54**	.80			
16. Engagement	.13*	.16**	-.01	.46**	.33**	-.13*	.32**	.35**	.36**	-.23**	.45**	-.44**	.23**	.68**	-.65**	.81		
17. Stress	-.21**	-.20**	.03	-.37**	-.33**	.11*	-.34**	-.29**	-.27**	.37**	-.53**	.59**	-.36**	-.47**	.57**	-.54**	.90	
18. Self-Esteem	.15**	.20**	.02	.53**	.45**	-.14**	.43**	.38**	.25**	-.33**	.48**	-.52**	.39**	.49**	-.56**	.55**	-.61**	.85

* = $p < 0.05$, ** = $p < 0.01$

Path A: Effects of leadership styles on subordinate functioning

Results of the effect of leadership styles on subordinate functioning are displayed in Table 2. As expected, all constructive leadership styles had positive effects on all positive subordinate functioning and negative effects on negative subordinate functioning, with the single exception of a nonsignificant association between directive leadership and positive OCB. Hypothesis 1a was thereby nearly fully confirmed. Meanwhile, destructive leadership (laissez-faire) had a positive effect on negative subordinate functioning, however, it was not found to have a negative effect on positive subordinate functioning. Hypothesis 1b was therefore only partly supported.

Table 2. Unstandardised effects of leadership styles on subordinate functioning, controlling for age and tenure.

	OCB Positive			OCB Negative			Performance			Bullying		
	B	*SE*	*t*	*B*	SE	*t*	*B*	*SE*	*t*	*B*	*SE*	*t*
Transformational	9.68**	1.60	6.04	-2.58**	.57	-4.53	3.29**	.39	8.45	-.36**	.07	-5.16
Participative	14.00**	3.47	4.04	-7.00**	1.18	-5.95	4.80**	.86	5.56	-.97**	.14	-6.75
Transactional	14.27**	3.47	4.12	-5.69**	1.20	-4.75	5.72**	.85	6.75	-.69**	.15	-4.66
Directive	5.61	2.96	1.90	-4.60**	1.01	-4.57	4.80**	.71	6.77	-.74**	.12	-6.01
Laissez-faire	5.45	3.83	1.42	4.75**	1.31	3.62	-.59	.97	-.61	.49**	.16	2.97

$* = p < 0.05$, $** = p < 0.01$

Path B: Effects of subordinate functioning on leader outcomes

Table 3 displays findings of the effects of subordinate functioning on leader outcomes (Path B).

Positive OCB. Positive OCB significantly and positively predicted job satisfaction and job engagement after individually controlling for each leadership style. However, positive OCB did not significantly predict self-esteem and only predicted recovery experience after controlling for the directive and laissez-faire leadership styles, but not after individually controlling for transformational, participative, and transactional leadership. In terms of negative leader outcomes, positive OCB predicted emotional exhaustion in the expected direction after individually controlling for all leadership styles, however positive OCB did not predict leader cognitive stress.

Subordinate performance. Meanwhile, subordinate performance predicted leader job satisfaction after controlling for all leadership styles apart from transformational leadership. Subordinate performance did not predict leader work engagement, and only predicted self-esteem after controlling for participative leadership, but not when the other leadership styles were controlled for. Subordinate performance predicted recovery experience after individually controlling for all leadership styles. With regards to negative leader outcomes, subordinate performance did not predict leader emotional exhaustion, however, it did predict leader cognitive stress after individually controlling for all leadership styles.

Negative OCB. Negative OCB did not predict any of the outcome variables after individually controlling for leadership style.

Bullying. Bullying significantly predicted all leader outcomes, with the exception of leader recovery experience which was not predicted by any of the subordinate behaviour variables after individually controlling for leadership style. Hence, Hypothesis 2b was mostly supported.

In summary, bullying was the strongest predictor of leader well-being, with 25 statistically significant effect sizes out of 30, whereas positive OCB and performance had 16 and 15 statistically significant effects respectively. Negative OCB, however, did not predict any of the leader outcomes. Together, these findings only partly support Hypothesis 2a: only some positive subordinate behaviour predicted positive leader outcomes, and only some positive subordinate behaviour predicted negative leader outcomes.

Table 3. Path B: Unstandardised effects of subordinate functioning on leader outcomes, controlling for individual leadership styles, age and tenure.

	Job Satisfaction			Job Engagement			Self-Esteem			Recovery			Emotional Exhaustion			Cognitive Stress		
			CI			CI			CI			CI			CI			CI
	B	SE	LL, UL	B	SE	LL, UL	B	SE	LL, UL	B	SE	LL, UL	B	SE	LL, UL	B	SE	LL, UL
Transformational																		
OCB Positive	**.003***	.001	.000, .006	**.006****	.002	.003, .009	.000	.002	-.003, .004	.004	.003	-.002, .009	**-.003***	.002	-.006. -.000	-.000	.001	-.002, .002
OCB Negative	.005	.004	-.002, .012	.001	.004	-.008, .009	-.000	.005	-.010, .010	-.006	.007	-.020, .008	.004	.004	-.004, .012	.003	.003	-.002, .009
Performance	.012	.006	-.000, .024	-.003	.007	-.018, .011	.011	.009	-.006, .028	**.029***	.013	.004, .054	-.002	.007	-.015, .012	**-.012****	.005	-.021, -.003
Bullying	**-.076***	.031	-.138, -.015	**-.170****	.038	-.244, -.096	**-.261****	.045	-.349, -.172	.016	.065	-.112, .144	**.178****	.036	.108, .249	**.189****	.024	.141, .236
Participative																		
OCB Positive	**.004****	.001	.001, .007	**.007****	.002	.004, .010	.002	.002	-.003, .006	.005	.003	-.001, .010	**-.004****	.002	-.278, .066	-.001	.001	-.003, .001
OCB Negative	.002	.004	-.005, .101	-.001	.004	-.010, .008	-.002	.005	-.013, .008	-.009	.008	-.024, .006	.005	.004	-.003, .013	.004	.003	-.001, .010
Performance	**.020****	.006	.007, .032	.006	.008	-.009, .020	**.026****	.009	.007, .044	**.043****	.013	.018, .069	-.007	.007	-.020, .007	**-.014**	.005	-.023, -.005
Bullying	**-.071***	.034	-.138, -.005	**-.154****	.040	-.233, -.075	**-.236****	.049	-.336, -.139	.038	.069	-.097, .173	**.174****	.037	.101, .248	**.189****	.025	.141, .238
Transactional																		
OCB Positive	**.004****	.001	.001, .006	**.007****	.002	.004, .010	. 002	.002	-.002, .006	.005	.003	-.001, .010	**-.004***	.002	-.007, -.001	-.000	.001	-.002, .002
OCB Negative	.004	.004	-.003, .011	-.001	.004	-.010, .007	-.002	.005	-.012, .009	-.006	.007	-.020, .009	.004	.004	-.004, .012	.003	.003	-.002, .009
Performance	**.016***	.006	.003, .028	.002	.008	-.013, .017	.017	.009	-.001, .035	**.031**	.013	.007, .056	-.003	.007	-.017, .010	**-.013****	.005	-.022, -.004
Bullying	**-.078***	.032	-.141, -.014	**-.173****	.039	-.250, -.095	**-.264****	.047	-.357, -.171	.015	.065	-.113, .142	**.179****	.036	.108, .250	**.189****	.024	.142, .236
Directive																		
OCB Positive	**.005****	.001	.002, .007	**.008****	.002	.005, .011	.003	.002	-.001, .007	**.007***	.003	.002, .012	**-.004***	.002	-.007, -.001	-.001	.001	-.003, .001
OCB Negative	.003	.004	-.004, .010	-.003	.004	-.011, .006	-.004	.005	-.014, .006	-.009	.007	-.023, .005	.006	.004	-.002, .013	.004	.003	-.001, .009
Performance	**.014***	.006	.002, .026	.002	.008	-.014, .017	.017	.009	-.002, .035	**.029***	.013	.004, .054	-.005	.007	-.019, .009	**-.012***	.005	-.021, -.003
Bullying	**-.066****	.032	-.129, -.002	**-.166****	.040	-.244, -.088	**-.246****	.048	-.340, -.151	.038	.066	-.091, .168	**.176****	.037	.104, .248	**.185***	.024	.138, .233
Laissez-Faire																		
OCB Positive	**.004****	.001	.001, .007	**.008****	.002	.005, .011	.003	.002	-.001, .007	**. 006***	.003	.000, .011	.004	.002	.004, -.007	-.001	.001	-.003, .001
OCB Negative	.001	.004	-.007, .008	-.003	.004	-.011, .006	-.006	.005	-.016, .005	-.014	.007	-.029, .000	.006	.004	.168, -.002	.004	.003	-.001, .010
Performance	**.020****	.006	.008, .033	.006	.008	-.011, .006	.026**	.009	.008, .045	**.042****	.013	.017, .068	-.007	.007	-.021, .006	**-.015****	.005	-.024, -.005
Bullying	**-.083***	.033	-.149, -.017	**-.169****	.040	-.248, -.091	**-.263****	.050	-.361, -.166	-.006	.068	-.139, .127	**.177****	.037	.105, .249	**.189****	.024	. 141, .237

* = *p* < 0.05, ** = *p* < 0.01

Path C' and path C: Transformational leadership

Total, direct (path C'), and indirect (path C) effects of transformational leadership on leader outcomes are presented in Table 3. Transformational leadership had a significant, direct effects in the expected direction on all positive and negative leader outcome variables. Thus, Hypotheses 3a and 3b were supported with regards to transformational leadership.

Significant indirect effects of transformational leadership on all positive and negative leader well-being variables via overall subordinate functioning were found. However, only some significant findings were found for the individual mediating variables: Bullying significantly and partly mediated the effect of transformational leadership on job satisfaction and self-esteem; positive OCB and bullying partly mediated the effect on work engagement and emotional exhaustion; and performance and bullying partly mediated the effect on cognitive stress. Meanwhile, negative OCB did not significantly mediate any of the effects of transformational leadership on positive or negative leader outcomes. Further, none of the individual mediator variables significantly mediated the effect of transformational leadership on recovery. Hypothesis 4a and 4b – regarding transformational leadership – were thus partly supported.

In sum, only part mediation was found in the effect of transformational leadership on leader well-being. In total, eight mediating effects were found. Bullying was the strongest mediating factor with five significant effects in total. Meanwhile, performance only had one significant mediating effect (on cognitive stress), while positive OCB had two significant mediating effects (on engagement and emotional exhaustion). However, negative OCB did not mediate any of the relationships between transformational leadership and leader outcomes.

Table 4. Path C' and C: Unstandardised total, direct, and indirect effects of *transformational* leadership on leader outcomes, controlling for age and tenure.

	Job Satisfaction		95% CI	Job Engagement		95% CI	Self-Esteem		95% CI	Recovery		95% CI	Emotional Exhaustion		95% CI	Cognitive Stress		95% CI
	B	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*
Total Effect	**.327****	.034	.261, .393	**.392****	.041	.311, .473	**.573****	.051	.473, .672	**.555****	.068	.421, .690	**-.276****	.040	-.354, -.198	**-.191****	.030	-.250, -.132
Tenure	.196	.220	-.237, .629	.312	.269	-.218, .842	**.758***	.330	.109, 1.406	-.237	.445	-1.113, .639	-.018	.259	-.527, .491	-.375	.195	-.759, .008
Age	-.143	.247	-.628, .342	.323	.302	-.271, .916	.374	.369	-.352, 1.101	-.292	.499	-1.113, .639	-.414	.290	-.985, .156	**-.529***	.219	-.959, -.099
R^2	**.228****			**.229****			**.306****			**.162****			**.138****			**.161****		
F (*df2*)	32.56 (341)			33.85 (342)			50.34 (342)			22.07 (342)			18.18 (342)			13.21 (340)		
Direct Effect (Path C')	**.243****	.036	.172, .314	**.284****	.043	.199, .370	**.437****	.052	.335, .540	**.413****	.075	.265, .561	**-.164****	.041	-.246, -.081	**-.072****	.028	-.126, -.017
	BB	*BSE*	95% BCI *LL, UL*	*BB*	*BSE*	95% BCI *LL, UL*	*BB*	*BSE*	95% BCI *LL, UL*	*BB*	*BSE*	95% BCI *LL, UL*	*BB*	*BSE*	95% BCI *LL, UL*	*BB*	*BSE*	95% BCI *LL, UL*
Indirect Effect(s) (Path C)	**.084**	.022	.043, .129	**.108**	.025	.060, .159	**.135**	.031	.078, .202	**.142**	.043	.062, .232	**-.112**	.025	-.165, -.065	**-.119**	.020	-.160. -.082
OCB Positive	.028	.018	-.004, .066	**.059**	.020	.024, .103	.004	.020	-.032, .046	.036	.033	-.028, .101	**-.033**	.016	-.068, -.004	-.002	.010	-.024, .018
OCB Negative	-.012	.011	-.036, .006	-.002	.012	-.027, .022	.000	.013	-.027, .026	.016	.021	-.026, .060	-.010	.011	-.033, .011	-.009	.008	-.026, .006
Performance	.040	.024	-.008, .088	-.011	.027	-.064, .042	.037	.031	-.020, .101	.096	.053	-.001, .204	-.005	.025	-.054, .043	**-.040**	.017	-.075, -.008
Bullying	**.028**	.014	.003, .056	**.062**	.018	.029, .100	**.095**	.026	.049, .150	-.006	.026	-.058, .048	**-.065**	.018	-.105, -.032	**-.068**	.016	-.102, -.040

Note. B = unstandardised coefficient; SE = standard error; CI = confidence intervall; LL = lower limit; UL = upper limit; BB = bootstrap unstandardised coefficient; BSE = bootstrap standard error; BCI = bootstrap confidence interval. * = $p < .05$; ** = $p < .01$

Path C' and path C: Participative leadership

Total, direct (path C'), and indirect (path C) effects of participative leadership on leader outcomes are reported in Table 4. Participative leadership had a significant and positive effect on work engagement, self-esteem, and recovery, however, no significant direct effect of participative leadership on job satisfaction was found. Hence, Hypothesis 3a, regarding participative leadership, was only partly supported. Meanwhile, no significant direct effect on any of the negative leader outcomes was found. Hypothesis 3b, with regards to participative leadership, was therefore rejected.

Overall significant indirect effects of participative leadership on all outcome variables were found. In terms of individual mediation, positive OCB and performance partially mediated the effect of participative leadership on job satisfaction, positive OCB and bullying partially mediated the effect on work engagement and emotional exhaustion, performance and bullying partially mediated the effect on self-esteem, performance partially mediated the effect on recovery, and positive OCB, performance and bullying partially mediated the effect on cognitive stress. Thus, Hypothesis 4a and 4b were partly supported regarding participative leadership.

To summarise, five significant effects were found for part mediation on three of four of the positive leader outcomes (work engagement, self-esteem, and recovery), with performance and bullying being the most prominent mediators. Meanwhile, seven significant fully mediating effects were found on both the negative outcomes and job satisfaction, with bullying being the strongest mediator, followed by performance and positive OCB respectively. However, as with transformational leadership, negative OCB did not mediate any of the effects of participative leadership on leader well-being. Thus, in total, 12 significant indirect effects were found for participative leadership on leader well-being.

Table 5. Path C' and C: Unstandardised total, direct, and indirect effects of *participative* leadership on leader outcomes, controlling for age and tenure.

	Job Satisfaction			Job Engagement			Self-Esteem			Recovery			Emotional Exhaustion			Cognitive Stress		
			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI
	B	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*
Total Effect	**.347****	.078	.194, .500	**.583****	.092	.402, .765	**.835****	.116	.607, 1.064	**.674****	.153	.374, .974	**-.400****	.087	-.571, -.230	**-.311****	.064	-.438, -.184
Tenure	.274	.243	-.204, .751	.376	.288	-.190, .943	**.884***	.363	.171, 1.597	-.055	.476	-.991, .881	-.067	.270	-.598, .463	**-.397****	.201	-.792, -.002
Age	-.076	.271	-.609, .458	.362	.322	-.272, .995	.418	.405	-.379, 1.215	-.237	.532	-1.284, .809	-.443	.302	-1.037, .150	**-.545***	.225	-.986, -.103
R²	**.062****			**.270****			**.171****			**.054****			**.073****			**.120****		
F (*df2*)	7.48 (340)			17.76 (337)			23.42 (341)			6.51 (341)			8.96 (341)			15.56 (341)		
Direct Effect (Path C')	.145	.079	-.010, .301	**.308****	.094	.123, .492	**.446****	.116	.219, .674	**.374***	.161	.057, .690	-.106	.087	-.278, .066	-.020	.058	-.134, .094

			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI
	BB	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*
Indirect Effect(s) (Path C)	**.202**	.051	.106, .307	**.276**	.057	.172, .389	**.389**	.080	.247, .561	**.300**	.091	.128, .488	**-.294**	.054	-.405, -.195	**-.291**	.048	-.389, -.198
OCB Positive	**.054**	.030	.005, .123	**.095**	.037	.034, .179	.021	.034	-.040, .097	.067	.051	-.027, .174	**-.056**	.027	-.115, -.011	**-.009**	.015	-.040, .019
OCB Negative	-.017	.028	-.073, .035	.004	.033	-.060, .071	.016	.037	-.058, .091	.063	.061	-.054, .187	-.036	.030	-.097, .020	-.029	.021	-.072, .009
Performance	**.095**	.042	.020, .183	.026	.041	-.056, .106	**.122**	.058	.025, .251	**.208**	.088	.054, .400	-.032	.037	-.107, .039	**-.069**	.027	-.127, -.023
Bullying	.070	.038	-.004, .147	**.150**	.047	.065, .250	**.229**	.069	.110, .383	-.037	.075	-.183, .112	**-.170**	.046	-.268, -.088	**-.184**	.041	-.273, -.112

Note. B = unstandardised coefficient; SE = standard error; CI = confidence intervall; LL = lower limit; UL = upper limit; BB = bootstrap unstandardised coefficient; BSE = bootstrap standard error; BCI = bootstrap confidence interval. * = $p < .05$, ** = $p < .01$

Path C' and path C: Transactional leadership

Total, direct (path C'), and indirect (path C) effects of transactional leadership on leader outcomes are reported in Table 5. Transactional leadership significantly predicted all leader outcomes directly, which thus contradicts the stated hypothesis that transactional leadership does not have a significant effect on negative leader outcomes. The strongest effects were found for recovery and self-esteem. Thus, Hypothesis 3a was fully supported regarding transactional leadership, however, Hypothesis 3c was rejected.

Meanwhile, significant indirect effects of transactional leadership on all well-being variables via overall subordinate functioning, were found in the expected direction. Follower performance, positive subordinate OCB, and subordinate bullying partly mediated the effect of transactional leadership on job satisfaction; subordinate bullying and positive subordinate OCB mediated the effect on work engagement and emotional exhaustion; subordinate bullying mediated the effect on self-esteem; follower performance mediated the effect on recovery; and subordinate bullying and performance mediated the effect on leader cognitive stress. Hypothesis 4a and 4b were thus partially supported with regards to transactional leadership.

Overall, only part mediation was found in the effect of transactional leadership on leader well-being. In total, 11 mediating effects were found. Bullying was the strongest mediating factor with five significant effects in total, whereas positive OCB and performance significantly mediated three relationships each, with fairly similar effect sizes. Again, negative OCB did not demonstrate any significant mediation.

Table 6. Path C' and C: Unstandardised total, direct, and indirect effects of *transactional* leadership on leader outcomes, controlling for age and tenure.

	Job Satisfaction		95% CI	Job Engagement		95% CI	Self-Esteem		95% CI	Recovery		95% CI	Emotional Exhaustion		95% CI	Cognitive Stress		95% CI
	B	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*
Total Effect	**.532****	.075	.385, .679	**.530****	.093	.347, .714	**.936****	.114	.712, 1.161	**1.12****	.145	.836, 1.406	**-.489****	.085	-.657, -.322	**-.360****	.064	-.485, -.235
Tenure	.259	.232	-.197, .715	.409	.289	-.160, .978	**.865***	.353	.171, 1.560	-.178	.448	-1.059, .704	-.062	.264	-.581, .457	**-.401**	.197	-.789, -.013
Age	-.043	.260	-.554, .467	.448	.324	-.189, 1.085	.549	.396	-.229, 1.327	-.135	.502	-1.123, .853	-.496	.296	-1.078, .085	**-.585**	.221	-1.019, -.150
R^2	**.136****			**.110****			**.203****			**.149****			**.102****			**.141****		
F *(df2)*	17.90 (341)			14.03 (342)			28.94 (342)			19.95 (342)			12.87 (342)			18.73 (342)		
Direct Effect (Path C')	**.359****	.076	.210, .508	**.288****	.092	.106, .470	**.618****	.111	.399, .837	**.853****	.153	.553, 1.153	**-.267****	.085	-.434, -.100	**-.130***	.057	-.242, -.019
			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI
	BB	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*
Indirect Effect(s) (Path C)	**.173**	.045	.088, .267	**.242**	.054	.145, .353	**.318**	.066	.197, .458	**.268**	.083	.126, .447	**-.222**	.048	-.320, -.132	**-.230**	.041	-.311, -.153
OCB Positive	**.053**	.029	.004, .117	**.103**	.038	.040, .188	.027	.034	-.033, .103	.067	.048	-.018, .172	**-.056**	.027	-.117, -.010	-.006	.015	-.039, .023
OCB Negative	-.022	.023	-.072, .019	.007	.027	-.043, .063	.009	.028	-.048, .067	.032	.046	-.055, .127	-.023	.024	-.072, .022	-.019	.017	-.057, .011
Performance	**.089**	.046	.007, .190	.013	.049	-.079, .114	.099	.061	-.010, .232	**.180**	.095	.018, .385	-.019	.044	-.110, .063	**-.073**	.031	-.139, -.017
Bullying	**.054**	.027	.003, .110	**.120**	.035	.055, .194	**.183**	.052	.092, .294	-.010	.050	-.112, .088	**-.125**	.036	-.199, -.059	**-.131**	.035	-.204, -.069

Note. B = unstandardised coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit; BB = bootstrap unstandardised coefficient; BSE = bootstrap standard error; BCI = bootstrap confidence interval. * = $p < .05$, ** = $p < .01$

Path C' and path C: Directive leadership

Total, direct (path C'), and indirect (path C) effects of transactional leadership on leader outcomes are reported in Table 6. Direct effects of directive leadership on job satisfaction, work engagement, self-esteem, recovery, and cognitive stress were found, however, no direct effect of directive leadership on emotional exhaustion was found. Again, the finding of a significant negative effect of directive leadership on cognitive stress stands in contrast to the hypothesised outcome. Thus, Hypothesis 3a and 3c were both only partly supported.

Indirect effects of directive leadership on all leader well-being variables, including emotional exhaustion and cognitive stress, via overall subordinate functioning were found. However, none of the mediator variables individually and significantly mediated the effect of directive leadership on job satisfaction and recovery. Meanwhile, only bullying significantly mediated the effect on work engagement and self-esteem. Contrary to expectations, significant indirect effects on emotional exhaustion via subordinate bullying (full mediation), and on cognitive stress via subordinate bullying and follower performance was found. In sum, Hypothesis 4a – with respect to directive leadership – was thus partially supported.

To summarise, significant part mediation was found for all effects of directive leadership on leader well-being with the exception of emotional exhaustion, were full mediation was found. However, only five significant effects of the individual mediators were found, in which bullying accounted for four of these effects and performance accounted for one. Neither positive OCB nor negative OCB mediated any effects of directive leadership on leader well-being.

Table 7. Path C' and C: Unstandardised total, direct, and indirect effects of *directive* leadership on leader outcomes, controlling for age and tenure.

Directive	Job Satisfaction		95% CI	Job Engagement		95% CI	Self-Esteem		95% CI	Recovery		95% CI	Emotional Exhaustion		95% CI	Cognitive Stress		95% CI
	B	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*
Total Effect	**.441****	.063	.318, .565	**.399****	.079	.244, .554	**.733****	.096	.544, .922	**.845****	.123	.602, 1.087	**-.319****	.073	-.462, -.175	**-.333****	.053	-.437, -.230
Tenure	.291	.233	-.167, .749	.472	.291	-.101, 1.045	**.877****	.356	.177, 1.576	-.087	.457	-.986, .811	-.110	.270	-.640, .420	**-.431***	.195	-.814, -.047
Age	-.151	.261	-.665, .363	.345	.327	-.298, .989	.389	.399	-.396, 1.175	-.342	.513	-1.351, .667	-.424	.303	-1.020, .171	**-.495***	.219	-.926, -.065
R^2	**.134**			**.096****			**.184****			**.121****			**.068****			**.162****		
F *(df2)*	17.54 (339)			11.97 (340)			25.57 (340)			15.66 (340)			8.23 (340)			21.82 (340)		
Direct Effect (Path C')	**.313****	.063	.188, .438	**.214****	.078	.062, .367	**.434****	.094	.249, .619	**.655****	.129	.402, .909	-.116	.072	-.258, .025	**-.117***	.047	-.210, -.025

			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI
	BB	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*
Indirect Effect(s) (Path C)	**.128**	.037	.059, .207	**.185**	.045	.101, .275	**.299**	.056	.197, .414	**.190**	.066	.066, .327	**-.202**	.039	-.282, -.128	**-.216**	.033	-.281, -.154
OCB Positive	.026	.019	-.003, .069	.044	.028	-.007, .103	.019	.019	-.007, .067	.038	.030	-.006, .106	-.025	.018	-.065, .004	-.004	.007	-.022, .009
OCB Negative	-.013	.018	-.050, .021	.011	.021	-.030, .058	.018	.023	-.027, .066	.041	.038	-.027, .127	-.025	.020	-.067, .011	-.017	.014	-.047, .007
Performance	.067	.038	-.003, .148	.008	.043	-.076, .093	.081	.052	-.014, .188	.139	.078	-.004, .304	-.023	.034	-.107, .052	**-.058**	.027	-.115, -.010
Bullying	.049	.027	-.002, .105	**.122**	.035	.059, .194	**.181**	.050	.094, .287	-.028	.055	-.144, .077	**-.130**	.034	-.202, -.067	**-.137**	.030	-.199, -.080

Note. B = unstandardised coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit; BB = bootstrap unstandardised coefficient; BSE = bootstrap standard error; BCI = bootstrap confidence interval. * = $p < .05$, ** = $p < .01$

Path C' and path C: Laissez-faire leadership

Total, direct (path C'), and indirect (path C) effects of laissez-faire leadership on leader outcomes are reported in Table 7. No significant, negative direct effect of laissez-faire leadership on positive leader outcomes, and no positive, significant direct effect on negative leader outcomes were found. Instead, laissez-faire leadership had a significant *positive* effect on recovery. Hypothesis 3d was therefore rejected.

Despite no direct negative effect of laissez-faire leadership on job engagement and self-esteem, bullying mediated the effect of laissez-faire leadership on job engagement and self-esteem – hence full mediation was established. Full mediation was also found between laissez-faire leadership and emotional exhaustion and cognitive stress via subordinate bullying. Hypothesis 4c was thereby partly supported.

In sum, bullying significantly and fully mediated the effect of laissez-faire leadership on job satisfaction, self-esteem, emotional exhaustion, and cognitive stress. No other mediating effects were found.

Table 8. Path C' and C: Unstandardised total, direct, and indirect effects of laissez-faire leadership on leader outcomes, controlling for age and tenure.

	Job Satisfaction			Job Engagement			Self-Esteem			Recovery			Emotional Exhaustion			Cognitive Stress		
			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI
	B	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*	*B*	*SE*	*LL, UL*
Total Effect	.048	.087	-.123, .218	-.203	.105	-.410, .004	**-.283***	.134	-.547, -.020	.310	.169	-.022, .643	**.197***	.096	.008, .385	.132	.072	-.009, .273
Tenure	.367	.248	-.129, .855	.541	.300	-.050, 1.131	**1.091****	.383	.337, 1.844	.029	.483	-.920, .978	-.185	.274	-.724, .354	**-.490***	.205	-.893, -.087
Age	.010	.281	-.534, .563	.382	.341	-.288, 1.052	.467	.435	-.388, 1.322	.079	.548	-.998, 1.157	-.430	.311	-1.042, .182	**-.542***	.232	-.999, -.085
R²	.009			.036			**.058****			.010			**.027***			**.070****		
F (df2)	1.020 (341)			4.285 (342)			7.010 (342)			1.132 (342)			3.162 (342)			8.629 (342)		
Direct Effect (Path C')	.075	.080	-.082, .232	-.146	.096	-.334, .042	-.128	.119	-.362, .105	**.377***	.162	.059, .695	.104	.088	-.069, .276	.015	.058	-.100, .129
			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI			95% BCI
	BB	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*	*BB*	*BSE*	*LL, UL*
Indirect Effect(s) (Path C)	-.027	.042	-.110, .060	-.057	.053	-.153, .053	**-.155**	.073	-.302, -.014	-.066	.076	-.215, .087	.093	.048	-.003, .187	**.118**	.047	.028, .210
OCB Positive	.023	.019	-.088, .066	.042	.031	-.015, .106	.016	.018	-.015, .058	.030	.029	-.013, .097	-.024	.019	-.067, .008	-.004	.008	-.023, .008
OCB Negative	.003	.019	-.034, .042	-.013	.022	-.060, .030	-.027	.026	-.085, .018	-.069	.045	-.167, .009	.026	.021	-.011, .072	.020	.015	-.006, .054
Performance	-.012	.020	-.053, .031	-.004	.011	-.029, .021	-.015	.027	-.073, .040	-.025	.042	-.112, .065	.004	.011	-.018, .028	.009	.014	-.020, .038
Bullying	-.040	.022	-.087, -.004	**-.082**	.033	-.155, -.023	**-.128**	.050	-.235, -.041	-.003	.038	-.079, .077	**.086**	.034	.028, .160	**.092**	.034	.031, .164

Note. B = unstandardised coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit; BB = bootstrap unstandardised coefficient; BSE = bootstrap standard error; BCI = bootstrap confidence interval. * = $p < .05$, ** = $p < .01$

Discussion

Through a quantitative study, the present thesis aimed to confirm previous findings of relationships between leadership styles and leader well-being and leadership styles and subordinate functioning. However, the main goal was to identify relationships between different subordinate behavioural factors and leader well-being and, more importantly, test whether these factors mediated the relationships between leadership styles and leader outcomes. Considering the ample evidence of the effects of leadership styles on follower behaviour and functioning, it was hypothesised that follower behaviour and functioning in turn would pose as either a job demand or job resource for leaders – depending on the positive or negative valence of the behaviour – and would thus mediate the relationship between styles of leadership and the well-being of leaders. The study utilised data collected from 346 participants in supervisory positions across a large variation of occupations, and the results provided a part confirmation of previous findings of the relationship between leadership and leader well-being, as well as an intriguing insight into mediating mechanisms partly and fully responsible for these findings. Nevertheless, due to the large number of significant findings, only the most prominent will be discussed in more detail.

Total and direct effects

Overall, we found that constructive leadership styles were, as hypothesised, significantly related to all positive outcome variables in the expected directions. However, participative leadership did not have a direct effect on job satisfaction after controlling for age, tenure, and subordinate functioning. Also, contrary to previous findings of task-oriented leadership not being associated with negative leader well-being (see Kaluza et al., in press), results of the present study indicated that high levels of transactional and directive leadership qualities were negatively associated with both emotional exhaustion and cognitive stress. However, after controlling for age, tenure, and subordinate functioning, directive leadership did not have a direct effect on emotional exhaustion. The hypothesised relationship between task-oriented leadership and negative leader well-being in the present study was largely built on the findings of Kaluza et al.'s (in press) meta-analysis. However, the inconsistency between findings could be due to the fact that among the data used in Kaluza et al.'s (in press) analysis, only one study (out of 43) investigated directive leadership (which was in relation to emotional exhaustion), whereas only a few studies investigated the relationship between transactional leadership (as a whole rather than individual features of transactional leadership) and emotional exhaustion. None of the studies included in Kaluza et al.'s (in press) meta-analysis included cognitive stress

as an outcome variable. More studies are therefore needed to understand the nature of the relationships between leadership styles and leader well-being.

Meanwhile, laissez-faire (destructive) leadership was not found to have a significant direct negative effect on positive leader well-being, nor was laissez-faire leadership found to have a significant effect on negative leader outcomes. In fact, laissez-faire leadership was found to have a *positive* effect on leaders' ability to recover from work. Hence, these findings stand in contrast to the findings in Kaluza et al.'s (in press) meta-analysis. Although, to the present author's knowledge, laissez-faire leadership in relation to leader recovery has not previously been studied, the absence of other significant direct effects of laissez-faire leadership on leader well-being is somewhat surprising considering previous findings (Kaluza et al. (in press). Regarding the latter finding, the absence of direct effects could of course be due to the low reliability ($\alpha = .60$) of the scale used in the present study. With regards to recovery, perhaps the participants scoring high on laissez-faire leadership in our sample are simply just not intrigued by their work tasks and find it easy to distance themselves from work on their spare time. Either way, future studies would need to replicate these findings for causes to be inferred.

Indirect effects

Organisational citizenship behaviour

Negative OCB did not mediate any of the relationships between leadership styles and leader well-being. Perhaps this was due to the subtleness of the items included in the scale – meaning that if subordinates take an extra break or two, or spend some time in personal phone calls, it is not something that directly affect the leader notably. Another possibility is that the OCB measurement that was used was originally designed to measure OCB on the whole and was not intended to be split between a positive and a negative scale, or that the items on the positive scale are generally more relevant to leader well-being. Nevertheless, future studies utilising both positive and negative OCB measurements would be needed to provide more answers.

Regarding positive follower OCB however, the present study found it to mediate several relationships between leadership styles and leader well-being, specifically in relation to transformational, participative, and transactional leadership. A consistent pattern for these three leadership styles was that positive follower OCB mediated the effect on leader engagement and emotional exhaustion – concepts opposite each other on the same continuum (Demerouti et al., 2010). Perhaps these findings are due to the people-orientation of transformational, transactional, and participative leadership: Transformational leaders interact with subordinates to develop their expertise and stimulate creativity (Bass, 1999); participative leaders involve

themselves with, and include subordinates in the running of business (e.g. Yukl, 2012); and transactional leaders depend on interaction with subordinates to facilitate exchanges between leader and follower (Bass, 1990; Bass & Stogdill, 1990). If said interpretation is true, the idea that subordinate functioning in the form of positive OCB acts as a resource for leaders could be a meaningful interpretation.

Performance

High follower in-role performance was a contributing factor in reducing the cognitive stress related to all leadership styles, with the exception of laissez-faire leadership that, not surprisingly, simply does not concern itself with subordinate outcomes. Again, this illustrates the buffer effect in relation to the JD-R theory well – high follower performance acts as a resource for active leaders, in that it buffers the negative effect of job demands.

Bullying

Bullying proved itself to be the most prominent mediating factor in the present study, and mediated relationships between all leadership styles and multiple leader outcomes. Perhaps this finding is not too surprising: It has been suggested that workplace bullying, or harassment, is the very most detrimental workplace-stressor – resulting in more negative consequences than all other workplace stressors put together (Einarsen, 1999). Furthermore, bullying fully mediated the relationships between laissez-faire leadership and self-esteem, emotional exhaustion, and cognitive stress. These findings are particularly interesting because they could suggest that the laissez-faire leaders in our sample are not simply lazy or uninterested, but perhaps rather intimidated by their followers. However, conclusions can only be drawn after replication of the findings, especially considering the low reliability of the laissez-faire scale used in this study.

Overall interpretation of the indirect effects

Overall, the significant mediating effects found in the present study could be interpreted as fairly logical in that they fit the characteristics of the individual leadership styles well. For instance, transformational leaders are, as for instance seen in the present study (Table 1, 4), strongly associated with self-esteem, as well as taking a more holistic approach to leadership rather than rigidly concerning themselves with individual outcome measures. This could explain why subordinate functioning only mediated five relationships between transformational leadership and leader well-being measures as compared to participative and transactional

leadership where subordinate functioning mediated 11 relationships each, in that transformational leaders rely less on others' and more on their own capacities in their way of leading and hence their well-being outcomes, as compared to participative and transactional leaders. Meanwhile, a similar reasoning is suggested for the directive leadership style, for which subordinate functioning only mediated four relationships with leader outcomes. Directive leaders keep their distance from followers and primarily engage in one-way communication, and their primary concern is that followers deliver results. Hence, high follower in-role performance reduces the stress experienced by directive leaders, but neither positive follower OCB or performance have a mediating effect on other well-being related outcomes, simply because directive leaders' job satisfaction or work engagement are not dependent on follower behaviour, but rather on other (so far unknown) factors.

However, perhaps the most interesting finding of all, was the important role bullying played in mediating relationships between leadership styles and leader outcomes, suggesting that no leader, independent of leadership style, is immune to the detrimental effects of workplace abuse, which further affects the well-being leaders experience at work.

Study limitations

There are several limitations connected to the present study, three of which are considered the most important by the present author are briefly described below.

Causality

Although cross-sectional studies are useful in establishing relationships between variables, they do not let us reliably interpret the causal pathways. However, that said, a longitudinal or experimental design of a study that is first of its kind, which is the case here, would perhaps not have been considered feasible. Nevertheless, future studies could benefit from employing a more sophisticated approach to reliably establish causation.

Self-report data

Self-reported data is prone to bias and is therefore a common issue in social science research. In relation to the present study, social-desirability bias is probably the biggest issue when it comes to the self-assessment of leadership styles. Social-desirability bias occurs when respondents' responses represent what the respondent aspire to rather than reality (Rosenman, Tennekoon, & Hill, 2011), thus affecting the data in a positive direction. In relation to the subordinate functioning variables, the issue with having the leaders themselves judge their

subordinates' functioning, is that the standards set by the leaders will naturally vary and is thereby likely to result in biased data.

Sample

The participant sample used for the study was obtained through the crowdsourcing website MTurk, and is thus a so-called convenience sample. The main issue related to convenience samples is that it is not generalisable to the general population and could (most likely) be subject to bias (Etikan, Musa, & Alkassim, 2015). Future studies should aim to replicate the present findings using more controlled samples.

Scientific and practical implications

The present study demonstrates that the style of leadership leaders hold not only affect followers, but also have an influence on leaders' own well-being at work. As researchers gradually work through the mysteries of leadership, the present study contributes by highlighting the need to not only consider the effect leadership has on followers, but also the necessity to pay attention to leader well-being as well – for the purpose of identifying the most effective *and* health-promoting leader behaviours for all parties involved. As the first study to investigate mediating factors in the relationships between leadership styles and leader well-being, the results are promising and helps pave the way for further studies. Future studies should aim to replicate the present findings as well as discovering other important mediating factors in the relationships between leadership styles and leader outcomes.

In terms of practical implications, organisations could benefit from stimulating leader behaviour that further stimulates follower performance and OCB. However, the most important intervention as a result of the present study, would be to promote leader behaviour that reduces harassment and bullying in the workplace.

Conclusion

The present study shed new light on the mechanisms mediating the relationships between different styles of leadership and leader well-being. The results indicated that elements of subordinate functioning do indeed function as job demands and resources for leaders, depending on whether the subordinate behaviour is positive or negative. Nevertheless, although the findings are certainly promising, the study does need to be replicated before conclusions can be drawn regarding the interplay between leadership styles, subordinate functioning, and leader well-being.

References

Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology* , 22, 273-285.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

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

Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics*, 18, 19-31.

Bass, B. M. (1998). *Transformational leadership: Industril, military, and educational impact.* Mahwah, N.J.: Lawrence Erlbaum Associates.

Bass, B. M., & Avolio, B. J. (1992). Multifactor Leadership Questionnaire - Short Form 6S. I B. M. Bass, *Measures for leadership development Multifactor Leadership Questionnaire (MLQ).* Binghampton, NY: Center for Leadership Studies. Retrieved from http://alrestivo.com/Downloads_files/Multifactor%20Leadership%20Questionnaire.pdf.

Bass, B. M., & Bass, R. (2008). *The Bass handbook of leadership (4th ed.).* New York: Free Press.

Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications.* New York: Free Press.

Bentley, T. A., Catley, B., Cooper-Thomas, H., Gardner, D., O'Driscoll, M. P., Dale, A., & Trenberth, L. (2012). Perceptions of workplace bullying in the New Zealand travel industry: Prevalence and management strategies. *Tourism Management*, 33, 351-360.

Bhatti, M. H., Ju, Y., Akram, U., Bhatti, M. H., Akram, Z., & Bilal, M. (2019). Impact of participative leadership on organizational citizenship behavior: Mediating role of trust and moderating role of continuance commitment: Evidence from the pakistan hotel industry. *Sustainability*, 11, 1170.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3-5.

Carlyle, T. (1841). *On heroes, hero-worship, and the heroic in history.* London: James Fraser.

Casimir, G., Waldman, D., Bartram, T., & Yang, S. (2006). Trust and the relationship between leadership and follower performance: Opening the black box in Australia and China. *Journal of Leadership and Organizational Studies*, 12, 72-88.

Clark, R. A., Hartline, M. D., & Jones, K. C. (2009). The effects of leadership style on hotel employees' commitment to service quality. *Cornell Hospitality Quarterly*, 50, 209-231.

Collins, M. D., & Jackson, C. J. (2015). A process model of self-regulation and leadership: How attentional resource capacity and negative emotions influence constructive and destructive leadership. *The Leadership Quarterly*, 26, 386-401.

Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). *The experience of work.* New York: Academic Press.

Cooper-Thomas, H., Gardner, D., O'Driscoll, M., Catley, B., Bentley, T., & Trenberth, L. (2013). Neutralizing workplace bullying: The buffering effects of contextual factors. *Journal of Managerial Psychology* , 28, 384-407.

Dahl, R. A. (2019). Democracy. *Encyclopædia Britannica* , Retrieved from https://www.britannica.com/topic/democracy .

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499-512.

Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *Journal of Psychological Assessment*, 19, 12-23.

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology*, 15, 209-222.

Den Hartog, D. N., Van Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of Occupational and Organizational Psychology*, 70, 19-34.

Downton, J. V. (1973). *Rebel leadership: Commitment and charisma in the revolutionary process.* New York: Free Press.

Einarsen, S. (1999). The nature and causes of bullying at work. *International Journal of Manpower*, 20, 16-27.

Einarsen, S., Aasland, M. S., & Skogstad, A. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly*, 18, 207-216.

Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the negative acts questionnaire-revised. *Work & Stress*, 23, 24-44.

Ertureten, A., Cemalcilar, Z., & Aycan, Z. (2013). The relationship of downward mobbing with leadership style and organizational attitudes. *Journal of Business Ethics*, 116, 205-216.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2015). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Apllied Statistics*, 5(1), 1-4.

FAQs. (2019, July 16). Retrieved from Amazon Mechanical Turk: https://www.mturk.com/worker/help

Goodman, J. K., Cryder, C. E., & Cheema, A. (2013). Data collection in a flat world: The strength and weaknesses of Mechanical Turk samples. *Journal of Behavioral Decision Making* , 26, 213-224.

Havig, A. K., Skogstad, A., Kjekshus, L.

E., & Romøren, T. I. (2011). Leadership, staffing and quality of care in nursing homes. *BMC Health Services Research*, 11, 327.

Hayes, A. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression based approach.* New York: Guilford Press.

Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *ournal of Applied Psychology*, 89, 36-51.

Kaluza, A., Boer, D., Buengler, C., & van Dick, R. (in press). Leadership behaviour and leader self-reported well-being: A review, integration and meta-analytic examination. *Work & Stress*, doi: 10.1080/02678373.2019.1617369.

Kelloway, E. K., Sivanthan, N., Francis, L., & Barling, J. (2005). Poor leadership. I J. Barling, E. K. Kelloway, & M. Frone, *Handbook of workplace stress* (ss. 89-112). Thousand Oaks: Sage Publications.

Krasikova, D. V., Green, S. G., & LeBreton, J. M. (2013). Destructive leadership: A theoretical review, integration, and future research agenda. *Journal of Management*, 39, 1308-1338.

Kristensen, T. F., & Borg, V. (2003). *Copenhagen psychosocial questionnaire (COPSOQ).* Copenhagen: AMI.

Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created social climates. *Journal of Social Psychology*, 10, 271-299.

Roelen, C. A., Koopmans, P. C., Notenbomer, A., & Groothoff, J. W. (2008). Job satisfaction and sickness absence: A questionnaire survey. *Occupational medicine*, 58, 567-571.

Rosenman, R., Tennekoon, V., & Hill, L. G. (2011). Measuring bias in self-reported data. *International Journal of Behavioural & Healthcare Research*, 2, 320-332.

Schoenewolf, G. (1990). Emotional contagion: Behavioral induction in individuals and groups. *Modern Psychoanalysis*, 15, 49-61.

Sheehan, K. B. (2017). Crowdsourcing research: Data collection with Amazon's Mechanical Turk. *Communication Monographs*, 85, 140-156.

Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S., & Hetland, H. (2007). The destructiveness of laissez-faire leadership behavior. *Journal of Occupational Health Psychology*, 12, 80-92.

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 66, 653-663.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290-312.

Sonnentag, S., & Fritz, C. (2007). The Recovery Experience Questionnaire: development and validation of a measure for assessing recuperation and unwinding from work. *Journal if Occupational Health Psychology*, 12, 204-221.

Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Che, Z. X. (2005). Leader-member exchange as mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal*, 48, 420-432.

Yukl, G. (2012). Effective leadership behavior: What we know and what questions need more attention. *Academy of Management Perspectives*, 26, 66-85.

Yukl, G. A. (1989). Managerial leadership: A review of theory and research. *Journal of Management*, 15, 251-289.

Yukl, G., Gordon, A., & Taber, T. (2002). A hierarchical taxonomy of leadership behavior: Integrating a half century of behavior research . *Journal of Leadership & Organizational Studies*, 9, 15-32.

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37, 197-206.

Leadership Styles and Leader Well-Being: A Mediation Study

Appendix: Measurements

Measurements are listed in the same order as in the online questionnaire distributed to participants.

1. **Transformational, transactional, and laissez-faire leadership** (Bass & Avolio, 1992).

Please indicate which answer in response to the following questions applies to you as a leader/ manager…

1. I make others feel good to be around me (TF)
2. I express with a few simple words what we could and should do (TF)
3. I enable others to think about old problems in new ways (TF)
4. I help others develop themselves (TF)
5. I tell others what to do if they want to be rewarded for their work (T)
6. I am satisfied when others meet agreed-upon standards (T)
7. I am content to let others continue working in the same ways always (LF)
8. Others have complete faith in me (TF)
9. I provide appealing images about what we can do (TF)
10. I provide others with new ways of looking at puzzling things (TF)
11. I let others know how I think they are doing (TF)
12. I provide recognition/rewards when others reach their goals (T)
13. As long as things are working, I do not try to change anything (T*LF)
14. Whatever others want to do is OK with me (LF)
15. Others are proud to be associated with me (TF)
16. I help others find meaning in their work (TF)
17. I get others to rethink ideas that they had never questioned before (TF)
18. I give personal attention to others who seem rejected (TF)
19. I call attention to what others can get for what they accomplish (T)
20. I tell others the standards they have to know to carry out their work (T)
21. I ask no more of others than what is absolutely essential (LF)

(TF) = Transformational leadership; (T) = Transactional leadership; (LF) = Laissez-faire leadership; (T*LF) = item moved from transactional scale to laissez-faire scale

2. **Self-Esteem** (Rosenberg, 1965)

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement...

1. On the whole, I am satisfied with myself
2. At times I think I am no good at all (-)
3. I feel that I have a number of good qualities

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4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of (-)
6. I certainly feel useless at times (-)
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself (-)
9. All in all, I am inclined to feel that I am a failure (-)
10. I take a positive attitude toward myself

(-) = Reverse scoring

3.   Directive and participative leadership (Cook, Hepworth, Wall, & Warr, 1981).

Please indicate which response to the following questions applies to you as a manager/leader...

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1. I let employees know what is expected of them (D)
2. I encourage the use of uniform procedures (D)
3. I try out my ideas on employees* (D)
4. I make my attitude clear to employees (D)
5. I make sure that my role in the organization is understood by employees (D)
6. I maintain definite standards of performance (D)
7. I ask that employees follow standard rules and regulations (D)
8. I encourage employees to participate in important decisions (P)
9. I encourage employees to speak out when they disagree with a decision (P)
10. I make most decisions without asking employees for their opinions (–) (P)
11. I make important decisions without involving employees (–) (P)

(D) = Directive leadership; (P) = Participative leadership; (-) = Reverse scoring;

* = Ommitted from the present study following factor analysis

4.   Bullying - Adapted version of the Negative Acts Questionnaire (NAQ; Einarsen, Hoel, & Notelaers, 2009).

Looking back on the past six months, please indicate how often the following has happened between co-workers in your department…

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5. Spreading of gossip or rumours
6. Someone being ignored or excluded
7. Having insulting or offensive remarks made about their person, attitudes or private life
10. Hints or signals from others that someone should quit their job
11. Repeated reminders of someone's errors or mistakes
12. Someone being ignored or facing a hostile reaction when they approach

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13. Persistent criticism of someone's errors or mistakes
17. Someone having allegations made against them
8. Someone being shouted at or being the target of spontaneous anger
22. Threats of violence or physical abuse or actual abuse

Note. The items have been reworded slightly for the present study. The numbers in front of the items represent the numbers given by the creators of the scale. The current order is the same as presented in the online questionnaire.

5. **In-role performance** (Casimir, Waldman, Bartram, & Yang, 2006)

Please indicate approximately what percentage of your subordinates…

1. Complete their work by the time you have specified
2. Work hard
3. Produce work of a high standard
4. Make good use of their working time.

Note. The wording has been somewhat adapted

6. **OCB** (Smith, Organ, & Near, 1983)

Please indicate approximately what percentage of your subordinates…

1. Help others who have been absent
2. Are punctual
3. Volunteer for things that are not required
4. Take undeserved breaks * (Neg)
5. Orient new people even though it is not required
6. Attend work above the norm
7. Help others who have heavy work loads
8. Coast towards the end of the day* (Neg)
9. Give advance notice if unable to come to work
10. Spend a great deal of time with personal phone conversations* (Neg)
11. Do not take unnecessary time off work
12. Assist myself or other supervisors with our work
13. Make innovative suggestions to improve department
14. Do not take extra breaks
15. Attend functions not required but that help company image
16. Do not spend time in idle conversation

Note. The wording has been slightly changed from the original. (Neg) = Negative OCB

7.   Job satisfaction (Roelen, Koopmans, Notenbomer, & Groothoff, 2008)

Please indicate to what degree the following statements are true…

1. Overall, I am satisfied with my current job
2. I am satisfied with the time to complete my work
3. I am satisfied with the amount of work I have to do
4. I am satisfied with the variation of my work tasks
5. I am satisfied with my working conditions
6. I am satisfied with my work times
7. I am satisfied with my salary
8. I am satisfied with my colleagues
9. I am satisfied with my supervisor*

Note. * = Omitted from the questionnaire

8.   Engagement and emotional exhaustion (Demerouti, Bakker, Vardakou, & Kantas, 2003)

Please indicate to which degree the following statements are true…

1. I always find new and interesting aspects of my work (Eng)
2. There are days when I feel tired before I arrive at work (Ex)
3. It happens more and more often that I talk about my work in a negative way (Eng) (-)
4. After work, I tend to need more time than in the past in order to relax and feel better (Ex)
5. I can tolerate the pressure of my work very well (Ex) (-)
6. Lately, I tend to think less at work and almost do my job mechanically (Eng) (-)
7. I find my work to be a positive challenge (Eng)
8. During my work, I often feel emotionally drained (Ex)
9. Over time, one can become disconnected from this type of work (Eng) (-)
10. After working, I have enough energy for my leisure activities (Ex) (-)
11. Sometimes I feel sickened by my work tasks (Eng) (-)
12. After my work, I usually feel worn out and weary (Ex)
13. This is the only type of work I can picture myself doing (Eng)
14. Usually, I can manage the amount of my work well (Ex) (-)
15. I feel more and more engaged in my work (Eng)
16. When I work, I usually feel energized (Ex) (-)

Note. (Eng) = Engagement; (Ex) = Emotional exhaustion; (-) = reverse scoring

9.   Cognitive stress (Kristensen & Borg, 2003)

How much of the time in the past 4 weeks have you…

1. Had problems concentrating?

2. Had difficulty making decisions?
3. Had difficulty with remembering?
4. Found it difficult to think clearly?

10.   Recovery experience (Sonnentag & Fritz, 2007)

Below are some statements regarding time spent outside work. Please indicate to what degree the following statements are true…

1. I forget about work.
2. I don't think about work at all.
3. I distance myself from my work.
4. I get a break from the demands of work.
5. I kick back and relax.
6. I do relaxing things.
7. I use the time to relax.
8. I take time for leisure.
9. I learn new things.
10. I seek out intellectual challenges.
11. I do things that challenge me.
12. I do something to broaden my horizons.
13. I feel like I can decide for myself what to do.
14. I decide my own schedule.
15. I determine for myself how I will spend my time.
16. I take care of things the way that I want them done.