



MASTER THESIS

Transformational Leadership: Effects on Relations-Oriented Behaviour of Followers and Job Performance

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Abstract

Purpose – To what extent does transformational leadership behaviour of the leader affect followers' relations-oriented behaviour, and hence their job performance? This study discovers some unexpected contradicting findings on the transformational leadership theory by examining the verbal behaviour of leaders and followers from various teams.

Design/methodology/approach – Minutely coded verbal behavioural data from 113 leaders and 1486 followers were acquired by videotaping various team meetings of different teams within a big Dutch public-sector organization. Leaders were surveyed about their followers' job performance, while followers were asked to rate their trust in their leader.

Findings – To test the hypotheses, Model 7 of Hayes PROCESS and correlation analysis were used to examine the direct and mediated effects of transformational leadership on job performance and relations-oriented follower behaviour. We discover that the duration of leaders' transformational leadership behaviour has a negative, significant effect on followers' individual job performance. Followers with a higher frequency of positive relations-oriented behaviour during the videotaped meetings score significantly higher on their job performance.

Practical implications – Leaders who want to improve followers' job performance should limit the duration of their transformational leadership behaviour and should focus on building followers' trust in themselves. Organizations should be aware of the discrepancy between followers' perceptions of leadership and video-observed leadership behaviour.

Originality/value – The insights of this paper contribute to the transformational leadership literature by its novel and accurate way of measuring leaders' and followers' behaviour. Hence, although different studies explored the relationship between transformational leadership and job performance, to the best of our knowledge this study is the first to examine this relationship by using minutely coded verbal behaviour of videotaped meetings. This makes the results more objective and hence not subjective to the interpretation and perception of an individual. A significant negative relation between transformational leadership and job performance was found, contradicting the existing transformational leadership literature which until now connected transformational leadership to job performance positively.

Keywords – Transformational leadership, Relations-oriented behaviour, Job performance, Verbal behaviour, Social learning, Video-based micro-behavioural coding

Paper type – Research paper

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1. Introduction

Transformational leadership theory has received a lot of academic attention since its introduction more than 40 years ago, and it is still one of the most widely researched leadership frameworks (Day & Antonakis, 2012; Dinh et al., 2014; Northouse, 2016). As a result, transformational leadership theory may be recognized as an essential cornerstone in leadership research (Siangchokyoo et al., 2020). Although the terms *transformational leaders* and *transformational leadership* are sometimes used interchangeably, it is important to distinguish between the two. Hence, “transformational leadership” refers to the process through which leaders transform their followers, while the term “transformational leader” refers to those who are associated with the characteristics and behaviours of this leadership category (Siangchokyoo et al., 2020).

Numerous published researches show a link between transformational leadership and beneficial outcomes for people, groups, and organizations, as Siangchokyoo et al. (2020) acknowledges, indicating the relevance and importance of this concept. As a result, the concept that transformational leaders may influence their followers through improving performance provides a convincing theoretical foundation for both research and practice. Furthermore, despite the positive outcomes associated with this leadership paradigm, a leader is not truly labelled as "transformational" until his or her followers are transformed as well. Therefore, the efficacy of transformational leadership is reliant on the process of follower transformation as a method for comprehending the relationship between leadership and positive organizational performance. According to Avolio & Bass (1995, pp. 207–208), four components determine whether a leader is considered transformative and therefore contributes to the development of his or her followers: (I) Idealized influence or charisma (i.e., role modelling traits and behaviours); (II) Inspiration (i.e., visions of the future that are both captivating and motivating); (III) Intellectual stimulation (i.e., conventional ideas are being challenged, and new ideas and beliefs are being stimulated); and (IV) Individualized consideration (i.e., addressing the needs and problems of the followers) (Siangchokyoo et al., 2020). Moreover, transformational leaders are generally inspiring, motivating and charismatic leaders, who stimulate and treat their followers with personalized care. Therefore, transformational leaders' actions change their followers, allowing them to attain their maximum potential and provide the best results (Dvir et al., 2002).

Although transformational leadership has received a lot of attention in the past decades, some aspects of this paradigm still lack research and therefore could be further explored. Since Burns introduced the transformational leadership theory in 1978, hundreds of

studies (e.g. Derue et al., 2011; Judge & Piccolo, 2004; Lowe et al., 1996b; G. Wang et al., 2011) have revealed empirical evidence of moderate-to-strong correlations between transformational leadership and organizational outcomes. However, only a tiny percentage of the research to date attempted to explain how transformational leadership leads to positive work outcomes (Siangchokyoo et al., 2020). Therefore, there is a need for more research on explaining the relationship between transformational leadership on positive work outcomes, like job performance.

To explain this relationship between transformational leadership and positive work outcomes, different effects of transformational leadership on followers could be explored. The importance of this aspect was acknowledged by Burns, who argues that “the extent of real change in [followers] must be investigated, not assumed” (Burns, 1978, p. 440). Although this indicates the importance of investigating the effect of transformational leadership on the change in followers, instead of assuming this effect, Siangchokyoo et al. (2020) state that this important aspect is currently still understudied. Therefore, how transformational leadership may change followers should be studied. To do this, this study will focus on the interactions between leaders and followers, paying special attention to how followers are transformed and how the actions of transformational leaders cause these changes.

An investigation of the effect of transformational leadership on the behaviour of followers, and their positive work outcomes could therefore provide new insights on these understudied aspects of transformational leadership research. More specifically, this study will address this research gap by focussing on the extent to which transformational leadership influences the relations-oriented behaviour of the followers (behaviour), and their job performance (positive work outcome). To measure the relations-oriented behaviour of followers, the definition provided by Burke et al. (2006) will be used. Therefore, we classify one’s behaviour as relations-oriented if the follower shows “person-focused behaviours that facilitate the behavioural interactions, cognitive structures, and attitudes that must be formed before members can function effectively as a team” (Burke et al., 2006, p. 291). Analysing this relations-oriented behaviour of followers and connecting this to individual job performance is highly relevant since there is little understanding of the causal connections between leader behaviours, follower changes, and performance results to date (van Knippenberg & Sitkin, 2013). Although different scholars have analysed different mediators of the relationship between transformational leadership and change in followers (e.g. Castro et al., 2008; Huang et al., 2005; Piccolo & Colquitt, 2006; Walumbwa et al., 2004; Wang et al., 2005), to our knowledge none have analysed the relations-oriented behaviour of followers as

a possible mediator for this relationship. However, as transformational leadership is a more person-focused leadership style, aiming to inspire followers and create a shared goal, we assume that the relations-oriented behaviour of followers will likely mediate the relationship between transformational leadership and job performance.

The goal of this study is to uncover to what extent transformational leadership influences the relations-oriented behaviour as exhibited by the associates, and then their job performance. To address this issue, this study focuses on a sample of 113 teams with each one appointed leader, within a large Dutch public-sector organization. Hence, this research aims to answer the following research question:

“To what extent does transformational leadership as expressed by the leader influence the relations-oriented behaviour as exhibited by the employees, and subsequently the followers’ job performance?”

In this framework, this research contributes to the transformational leadership literature and expands the current literature on the relevant concepts of the different types of relations-oriented behaviour and job performance. Although different studies have researched the effects of transformational leadership on job performance, this study will contribute theoretically by, to the best of our knowledge, being the first to consider and explore the potential mediating effect of relations-oriented behaviour of employees on this relationship. Hence, this study will address a research gap in the literature in exploring a possible process through which transformational leadership might affect job performance. Moreover, by researching the mediating effects of relations-oriented behaviour of followers on the indirect effects of transformational leadership on job performance, this study contributes to the existing knowledge about the main effects of transformational leadership on job performance. Furthermore, the majority of leadership studies to date are based on self-report surveys (Bass & Bass, 2008), whereas more objective analyses are typically lacking. Christianson (2018) claims that examining phenomena using video elucidates elements of situational activities and interactions that are difficult to assess using other types of data. Hence, this study utilizes a unique video-based observation methodology whereby leaders’ and followers’ behaviours are minutely coded. Moreover, by assessing the effect of transformational leadership on job performance, as arguably mediated by the relations-oriented behaviour of followers, the outcomes of this study will contribute practically to different organizations, with similar organizational structures and leadership structures to the sample utilized for this study.

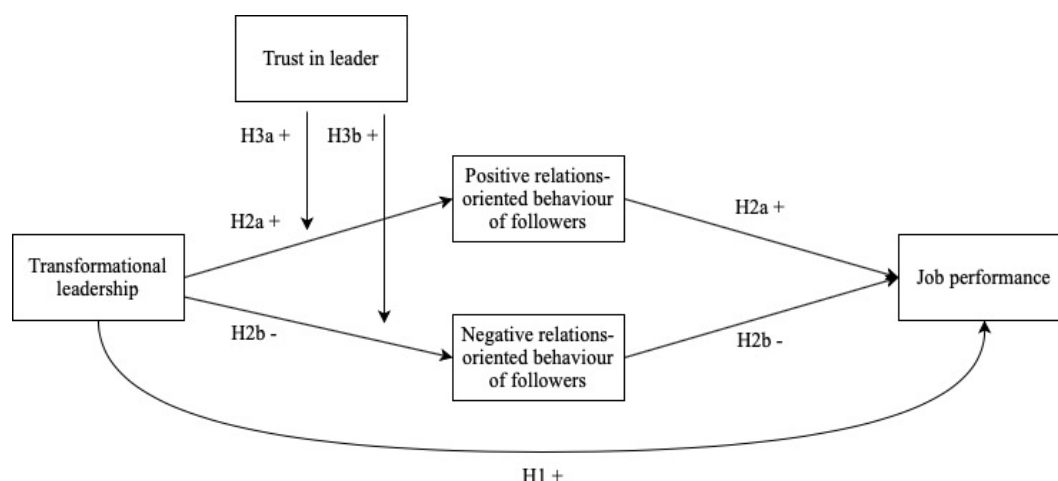
2. Theory

This section will review relevant literature and theories and provide the theoretical basis for this research as well as theoretically support the hypothesized relationships that will be further examined using the sample data for this study. Figure 1 shows the hypothesized model of this study, which displays the process through which transformational leadership could be connected to job performance. The next paragraphs will provide a more in-depth theoretical foundation of the predicted connections that lead to the predicted hypotheses, as shown in Figure 1. In paragraph 2.1, the theoretical underpinning of the transformational leadership theory will be provided, followed by an explanation of why we expect that transformational leadership will have a positive effect on job performance. In paragraph 2.2, the social learning theory will be used to explain why we expect positive and negative relations-oriented behaviour of the followers to mediate the relationship between transformational leadership and job performance. In paragraph 2.3, a theoretical foundation of why we expect the followers' trust in the leader to moderate the relationship between transformational leadership and their relations-oriented behaviour will be provided.

This hypothesized model, as will be discussed in the following paragraphs, is based on current theory and findings, assuming that past research' relationships are present. However, we must acknowledge that the majority of existing studies in the transformational leadership literature are based on a survey-based measurement of behaviour rather than analysing observed behaviour. As a result, while this study will use video-based verbal behaviour to test our hypothesized model, the predictions for our hypotheses are based on current survey-based literature.

Figure 1

Hypothesized model of the process linking transformational leadership to job performance



2.1 Positive effect of transformational leadership on job performance

Burns' establishment of the concept of the transformational leadership theory forty years ago proceeds to have a significant impact on today's approach and implementation of leadership theory. Burns' (1978) premise was that outstanding leaders are transformational in the sense that they function as an autonomous influence in transforming the character of the followers' motivational core. For the past decades, leadership researchers refined, broadened, and empirically confirmed this transformational leadership theory into what became the most thoroughly researched leadership paradigm (Day & Antonakis, 2012; Dinh et al., 2014; Northouse, 2016; Siangchokyoo et al., 2020). Bernard Bass and colleagues made the most significant contribution to the development of transformational leadership theory, who specified (I) the behavioural patterns of leaders to encourage follower transformation; (II) the aspects in which leaders transform followers; and (III) the relation of outcomes influenced by leader-follower interactions (Avolio & Bass, 1995; Bass, 1985; Bass & Riggio, 2006; Bass & Steidlmeier, 1999).

Bass' (1985) initial leadership theory distinguished transformational and transactional leader behaviours. Transformational leadership aims to inspire followers to enhance organizational performance through educating them about a shared goal, intellectually engaging them, and paying attention to their particular needs. In contrast, transactional leaders are more likely to employ rewarding and correcting behaviours. Instead of increasing goals, transactional leaders direct their followers and they participate in an exchange process when followers fulfil pre-set organizational- or leader goals (Bass, 1985; Hoogeboom & Wilderom, 2015). These different roles of exchanges between leaders and followers are referred to as leader-member exchange (LMX; Dulebohn et al., 2012; Ilies et al., 2007; Kim et al., 2015). Moreover, the findings of the study by Kim et al. (2015) imply that leaders who build high-quality LMX with their followers will allow them to feel more encouraged and inspired to take initiative, resulting in improved work performance. These findings are relevant for the transformational leadership theory, as high-quality LMX relates closely to transformational leadership. Hence, high-quality LMX is underpinned by mutual responsibility and reciprocity, characterized by mutual liking, trust and respect (Liden et al., 1997). Low-quality LMX, in contrast, is underpinned by the transactional aspects of the working relationship, like transactional exchange centred on compensation for work achievements (Maslyn & Uhl-Bien, 2001). More importantly, work outcomes like work engagement, work happiness and job performance have all been connected to LMX quality (Dulebohn et al., 2012; Gerstner & Day, 1997; Ilies et al., 2007). However, in line with the research gap in the transformational

leadership theory, the method or processes through which LMX quality impacts job performance are also poorly understood (Kim et al., 2015).

As stated in the introduction of this paper, this study will use the Avolio & Bass (1995) dimensional descriptors of transformational leadership, since they are the most identifiable and commonly synonymized dimensions of transformational leadership. According to Avolio & Bass (1995, pp. 207–208), the following four components determine whether a leader is considered transformational: (I) Idealized influence or charisma (i.e., role modelling traits and behaviours); (II) Inspiration (i.e., visions of the future that are both captivating and motivating); (III) Intellectual stimulation (i.e., conventional ideas are being challenged, and new ideas and beliefs are being stimulated); and (IV) Individualized consideration (i.e., addressing the needs and problems of the followers) (Siangchokyoo et al., 2020). As further explained by Kark & Shamir (2013), transformational leaders are charismatic; they communicate a goal with their followers (inspirational motivation), demonstrate how to achieve this goal (idealized influence), encourage followers to question the current quo (intellectual stimulation) and provide personal support (individualized consideration) (Avolio & Bass, 1995). As a result, followers embrace their leaders' beliefs and interests, resulting in reciprocated leader-followers social exchanges (Dulebohn et al., 2012; Martin et al., 2016) and coherence of self-identities and organizational identities (Hackett et al., 2018; Kark & Shamir, 2013). Accordingly, the transformational leadership behaviour of the participating leaders in this study will be analysed following these four components of behaviour.

Because this study will concentrate on follower changes as an effect of transformational leadership by the leader, we highlight and acknowledge the three identified assumptions of the transformational leadership theory as identified by Siangchokyoo et al. (2020, p. 3): (I) leaders are in charge of long-term change (i.e., transformation) in their followers; (II) followers undergo particular transformations; and (III) the method through which leaders create favourable workplace results is explained by a systematic, rather long-term transformation in followers. Hence, transformational leadership is thought to have a significant impact on employee attitudes and behaviours at work.

To address the research gap in the literature understanding the process through which transformational leadership impacts job performance (Kim et al., 2015), this study will focus on the specific employee outcome job performance as different studies indicated the favourable effect of transformational leadership on job performance (e.g. Avolio & Bass, 1995; Barling et al., 1996; Dvir et al., 2002; Lowe et al., 1996a; McCann et al., 2006). Hence,

we expect that transformational leadership, referring to the transformational leadership behaviour as shown by the leader, can be positively associated with employees' individual job performance. Therefore, we hypothesise:

Hypothesis 1. Transformational leadership has a positive relationship with individual job performance.

2.2 Relations-oriented follower behaviour as a mediator between transformational leadership and individual job performance

Although different studies indicated the favourable effect of transformational leadership on job performance (e.g. Avolio & Bass, 1995; Barling et al., 1996; Dvir et al., 2002; Lowe et al., 1996a; McCann et al., 2006), the processes by which transformational leaders influence their followers still have not been researched in depth (Avolio, Zhu, Koh, and Bhatia 2004), and different scholars have argued that a better knowledge of how these influential mechanisms work in transformational leadership should be prioritized. This shortcoming in transformational leadership literature is acknowledged by Van Knippenberg & Sitkin (2013), stating that there is still no complete understanding of the causal connections between leader behaviours, follower changes, and performance results. Although in-depth scientific research on this topic lacks, past studies have looked at different mediators of the relationship between transformative leadership and change in followers. The following are some of these mediator variables: (I) collective efficacy (Walumbwa et al., 2004); (II) core job characteristics (Piccolo & Colquitt, 2006); (III) leader-member exchange (Wang et al., 2005); (IV) person-organization fit (Huang et al., 2005); (V) psychological empowerment (Castro et al., 2008); and self-concordance at work (Bono & Judge, 2003). To expand the current literature and research on exploring the process through which transformational leadership affects job performance, we will study a new potential mediator for this relationship.

According to the social learning theory, individuals adapt their new behaviours through imitating their role models (Bandura, 1977). Moreover, those role models can act as a benchmark for acceptable behaviour, encouraging others to imitate their behaviour. Therefore, this might place the leader in the natural position of providing behavioural examples for their followers in team interaction contexts, such as team meetings (Lehmann-Willenbrock et al., 2015). As a result, followers may interpret the behaviour of their leader as an example of appropriate behaviour and therefore adapt their behaviour to meet these expectations. Multiple studies have shown that followers adjust their affective responses to

the affective responses of their leaders (e.g., Sy et al., 2005; Sy & Choi, 2013). Hence, followers of transformational leaders will most likely adapt and mimic comparable behaviour.

Since transformational leadership is aimed at inspiring followers to perform beyond expectations, transformational leaders generally interact with their followers by engaging in person- or relations-oriented type of interactions. Therefore, Hooigeboom et al. (2021) posited that relations-oriented behaviours of leaders are in line with transformational leadership. According to Behrendt et al. (2017), relations-oriented leaders are more considerate, engage more in promoting cooperation to harmonize activities and foster collaboration to stimulate increased individual performance. Therefore, building on the social learning theory, we expect that this relations-oriented leader's behaviour will influence the follower's behaviour likewise. To the best of our knowledge, no empirical research has considered followers' relations-oriented behaviour as a possible mediator for the relationship between transformational leadership and individual job performance. Accordingly, this study will focus on the relations-oriented behaviour of followers as a potential mediator for the relationship between transformational leadership and job performance. For this purpose, we will focus on both the frequency and the duration of the transformational leadership behaviour of the leaders and the relations-oriented behaviour of followers. In the following paragraphs, the different categories of verbal behaviour will be discussed to further illustrate when behaviour is categorized as "relations-oriented".

Prior research (e.g. Avolio & Bass, 1995; Derue et al., 2011; Yukl, 2010) indicates three main categories of verbal behaviour: (I) task-oriented, (II) positive relations-oriented and (III) negative relations-oriented behaviour. Therefore, when distinguishing followers' behaviour during meetings with their team in a professional setting, a distinction between those three verbal behaviours can be made as these are arguably the most acknowledged categorizations of behaviour (Behrendt et al., 2017; Judge & Piccolo, 2004; Schriesheim & Bird, 1979). The primary objective of task-oriented behaviour is to ensure that activities are completed in a timely and effective way (Hooigeboom & Wilderom, 2015). On the other hand, an individual exhibits relations-oriented behaviour to actively associate himself or herself with one or more specific individuals by positively or negatively identifying oneself with what one or more followers consider important (Burke et al., 2006). Burke et al. (2006) define relations-oriented behaviour as the "person-focused behaviours that facilitate the behavioural interactions, cognitive structures, and attitudes that must be formed before members can function effectively as a team" (p. 291). Therefore, if an individuals' message

emphasizes anything of (inter-)personal value, this can be classified as relations-oriented behaviour (Hooigeboom et al., 2021).

Relations-oriented behaviour can be classified as either positive relations-oriented behaviour (codes 10, 11, 12, 13, 14 and 15 in Table A1) or negative relations-oriented behaviour (codes 16, 17 and 18 in Table A1). According to Dalal (2005), negative relations-oriented behaviours are not beneficial to superior job performance. Therefore, this study hypothesizes that only positive relations-oriented behaviour of followers will positively mediate the indirect effects of transformational leadership on job performance. Hence:

Hypothesis 2a. Positive relations-oriented follower behaviour positively mediates the relationship between transformational leadership and follower job performance.

Hypothesis 2b. Negative relations-oriented follower behaviour negatively mediates the relationship between transformational leadership and follower job performance.

2.3 Trust as a moderator for the relationship between TFL and relations-oriented follower behaviour

The importance of trust in the leader has been acknowledged by different studies over the last decades and has therefore been the research topic of different researches. Dirks & Ferrin (2002) studied the relationship between trust in the leader and important outcomes and antecedents of this trust. Furthermore, according to this study, trust is a key notion in numerous leadership theories and is arguably the most often mentioned concept in the transformational leadership literature (Dirks & Ferrin, 2002). The Transformational Leadership Theory is based on followers' trust in their leader (Kirkpatrick & Locke, 1996; Podsakoff et al., 1990), acknowledging that followers' views of their leader's trustworthiness can influence this leader's effectiveness, as trust is recognized as an important cornerstone in the leader-member exchange theory (Schriesheim et al., 1999). Furthermore, some studies have argued that trust in transformational leaders results in desirable outcomes (e.g. Podsakoff et al., 1990). According to Rousseau et al. (1998), trust is "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another" (Dirks & Ferrin, 2002). Hence, we expect that trust will have a positive impact on the relationship between the follower and the leader.

According to Dirks & Ferrin (2002), theory distinguishes two perspectives that explain how trust in the leader is built and how this trust may impact the behaviour and performance of followers. The first perspective, known as the *relationship-based perspective*, is based on

trust being built by the nature of the relationship between the leader and the follower, from the perspective of the follower. Thus, how the follower perceives the nature of the relationship will serve as the foundation for how trust is built between those two individuals, and this trust will be further reinforced through social interactions between the leader and the follower. The second perspective, known as the *character-based perspective*, is based on trust being dependent on the followers' perceptions of the leader's traits and the possibility that these traits would impact his/her behaviour and decision-making affecting the vulnerability of the follower in the hierarchical relationship (Dirks & Ferrin, 2002). Thus, as the decision-making authority of the leader is argued to have a substantial influence on the follower, followers' trust in the leader becomes essential.

Building on these perspectives on trust in the leader, Mayer & Gavin (2005) stated that followers who do not trust their leader would concentrate their emphasis on avoiding blame or responsibility to avoid suffering negative repercussions, which diverts attention away from their job performance. Followers who trust their leaders, on the other hand, are more likely to reciprocate the leader's behaviour and therefore exhibit the desirable behaviour. According to this viewpoint, Konovsky & Pugh (1994) stated that the trust-based relationship between the leader and follower enhances individuals' willingness to accomplish their responsibilities and outperform their professional function. Furthermore, Yukl (1989) states that trust in the leader is one of the most important reasons that motivate followers of transformational leaders to improve their job performance. Hence, we expect that trust in the leader may strengthen the positive effect of transformational leadership on followers' job performance. Specifically, in line with our earlier proposed hypotheses, we expect that trust will moderate the relationship between the transformational leadership behaviour of the leader and the relations-oriented behaviour of the followers. Thus:

Hypothesis 3a. Trust in the leader moderates the positive relationship between transformational leadership and the positive relations-oriented behaviour of followers.

Hypothesis 3b. Trust in the leader moderates the negative relationship between transformational leadership and the negative relations-oriented behaviour of followers.

3. Methodology

3.1 Research Design

The data used in this study was obtained from a big Dutch public-sector organization, as part of a wider research project undertaken by the University of Twente's Change Management & Organizational Behaviour (CMOB) group. Hence, this data collected by the research team at CMOB may be used for multiple research purposes. The recently published paper by Hooigeboom et al. (2021) utilizes the same data and therefore the same data collection method, sample and measures as used in this study. Therefore, parts of the methodology chapters of these papers may be used in this chapter for the same purpose.

To determine to what extent transformational leadership behaviour of the leader (the IV) influences the relations-oriented behaviour as exhibited by the followers (the mediator), and subsequently their job performance (DV), a multi-method approach was adopted combining (I) coded video observations of leaders' behaviour, (II) coded video observations of followers' behaviour, and (III) questionnaires to assess individual job performance and followers' trust in the leader was used. As previously stated in chapter 1, this video-observation methodology is relatively unique in the field of leadership studies. This is because the vast majority of leadership studies to date depend on more traditional, quantitative survey methodologies which measure represent just the perceptions of behaviour rather than the actual field behaviours (Bass & Bass, 2008).

3.2 Sample

For this study, a sample of in total 113 leaders and 1486 followers with each one appointed leader and on average 12 followers ($SD = 5.7$) was used. This sample included people with ages ranging from 18 to 69 with an average leaders' age of 51.2 years old ($SD = 7.4$) and an average followers age of 49.1 years old ($SD = 10.7$). On average, the team members had worked at this Dutch public-sector organization for 25.1 years ($SD = 13.8$) and had worked in this team for 2.1 years ($SD = 1.5$). A small majority of the team members were male (60%). The sample includes only monocultural teams, with only individuals of the Dutch nationality.

One monthly staff meeting, led by each of the participating leaders in this study, was videotaped over the 12-month data collection phase of this research project. Job-related topics and progress were discussed during these staff meetings. The majority of the teams in this research met once a month or twice a month, as is standard practice in this and many other companies. The majority of the leaders' followers, who contributed to the team's tasks, had to be present at those sessions. Furthermore, the filmed meetings had to be ordinary meetings

that would have occurred even if the videotaping equipment had not been placed at the meeting location. The videotaped sessions lasted between 42.2 and 191.2 minutes ($M=89.3$, $SD = 37.8$). Every participating follower was asked to fill out a survey that included assessments of leader effectiveness immediately following each videotaped meeting.

3.3 Data Collection

The CMOB research team used a behavioural coding technique to code the video recordings, before the beginning of this specific research project. Multiple identified verbal actions from this coding scheme (Table A1) were utilized as indicators for detecting and recognizing certain situations. Leaders' behaviour during interaction with their team members was filmed at regular staff meetings. As stated in the paper of Hoozeboom et al. (2021), regular staff meetings like this are considered as “critical work context” (p. 7) (Allen et al., 2015; Baran et al., 2012; Hoozeboom & Wilderom, 2015, 2020; Lehmann-Willenbrock et al., 2015). Furthermore, Heaphy & Dutton (2008) explain that during those staff meetings, leaders and followers engage in social interaction patterns. In addition to these video recordings, Hoozeboom et al., (2021) explain that the participants filled in a survey after each meeting where they rated different aspects of the meeting on a 7-point Likert scale to check if the teams thought the meeting was representative compared to non-videotaped meetings ($M = 5.5$, $SD = 1.4$), if the leader's behaviour was representative of the behaviour he or she typically demonstrates ($M = 5.7$, $SD = 1.2$), and if the team's behaviour was comparable to that of non-videotaped meetings ($M = 5.9$, $SD = 1.2$).

3.4 Measures

Based on a previously validated 25-page codebook that was created in a prior PhD study and subsequently modified based on prior behavioural taxonomies and team communications research by Hoozeboom & Wilderom (2015), 19 mutually exclusive behaviours were first wordily transcribed and secondly, the behaviours of all team members during these meetings were systematically coded using specialized software program “The Observer XT” (Noldus et al., 2000; Spiers, 2004). These 19 micro-behaviours are categorized into three meta-categories of verbal behaviour: (I) task-oriented, (II) positive relations-oriented and (III) negative relations-oriented behaviour. Although we acknowledge that a follower can interpret a task-oriented statement from a leader as a relational statement (e.g., every task-oriented message may appear to contain a relational message (see Keyton & Beck, 2009; Watzlawick et al., 1967), the coders coded the leaders' behaviours based on their "surface-level communicative

function" (Keyton & Beck, 2009, p. 17). Moreover, although we agree that multiple meta-categories of verbal behaviour could apply to certain situations, we concentrate our verbal behaviour coding on the most applicable meta-category based on the primary objective of that persons' comment.

Students having a background in Business Administration, Psychology, or Communication studies were chosen to methodically and accurately code these micro-behaviours. The students received considerable instruction before coding these videos, particularly about how to utilize the codebook and video-coding software effectively (Behrendt et al., 2017). Two independent coders coded each video as its whole. Whilst previous guidelines suggest that two coders separately code 15–20 percent of the films (Klonek et al., 2016), a thorough method was used here to code every video material (i.e., 100% of the movies) by two coders. The coders had to code the same behaviour that took place within a two-second timeframe.

They had to code the same behaviour as if it happened in two seconds. A dispute might arise if similar behaviours were coded outside of this two-second time limit. Generally, there was a 94.35% inter-rater reliability ($Kappa = 0.93$), which is considered a high-level degree of agreement according to Landis & Koch (1977). The means of the coded frequencies of the behaviours were used as the behavioural input for the statistical analysis (see Table 1).

3.4.1 Transformational Leadership Behaviour

To operationalize transformational leadership behaviour we follow the four components of transformational leadership behaviour as proposed by Avolio & Bass (1995). Therefore, the following four components will be used to determine whether a leader is considered transformative: (I) Idealized influence or charisma; (II) Inspiration; (III) Intellectual stimulation; and (IV) Individualized consideration (Avolio & Bass, 1995, pp. 207–208; Siangchokyoo et al., 2020). The verbal behaviour of all leaders in our sample during the recorded meetings is coded by utilizing the coding scheme as published in Table A1. This was done both for the duration and frequency of each behaviour.

Accordingly, individualized consideration (code 10) measures the transformational leadership component (IV) Individual consideration; intellectual stimulations (code 11) measures (III) Intellectual stimulation; and Idealized influence behaviour (code 12) indicates the Idealized influence or charisma (I). The second dimension Inspiration (II) was not coded separately, since this dimension arises out of the other three transformational leadership behaviours. Hence, Inspiration (II) represents the presence and combination of the other three

transformational leadership components (combination of codes 10, 11 and 12). Furthermore, when the leader was giving his or her own opinion (code 7), this was occasionally considered and therefore coded as transformational leadership behaviour. Generally, the combination of these coded verbal behaviours that the leader showed during the meetings, which were classified as positive relations-oriented, determined if a leader was perceived as transformational. Hence, a leader showing more positive relations-oriented behaviour was perceived as a transformational leader (Hoogeboom et al., 2021).

To validate our findings and double-check for discrepancies between behaviour and survey-based measurements of transformational leadership, we asked each follower to rate their leader's transformational leadership behaviour by answering twenty survey questions based on Avolio and Bass' transformational leadership scale (1995). As a result of this additional survey-based evaluation of transformational leadership behaviour, we can validate our video observational findings and double-check the impacts of transformational leadership on relation-oriented follower behaviour and followers' job performance. Therefore, we will check for the correlation between the observed leaders' transformational leadership behaviour and the perceived leaders' transformational leadership behaviour according to the followers. Then, we will test our hypotheses once more using the survey-based measurement of the perceived transformational leadership to check if this results in different outcomes and thus if the measurement of transformational leadership influences our results.

3.4.2 Task-, Positive Relations-, and Negative Relations-Oriented Verbal Behaviours

In this paragraph, the operationalization of the three previously mentioned meta-categories (i.e., task-, positive relations-, and negative relations-oriented behaviour) of verbal behaviour will be further elaborated. For every individual in our sample, both the frequency and duration of their verbal behaviour was coded.

Task-oriented behaviours are those that are concerned with completing a task (e.g., Burke et al., 2006). To ensure that the tasks are completed, people who establish structure generally participate in a variety of task-oriented behaviours (i.e., by directing, giving information about the tasks and providing structure: codes 4, 5 and 6 in Table A1). Furthermore, task-oriented behaviour also includes behaviour in which a person describes as well as specifies the benchmarks for task performance, including what comprises ineffective performance, to ensure that followers or team-members can achieve better task progress and achieve the goals (i.e., by providing negative task feedback, task monitoring, and correcting: codes 1, 2 and 3 in Table A1). Furthermore, leaders' task-oriented behaviour was additionally

coded if leaders shared a viewpoint that applied to task performance and if the leader attempted to research consensus on task aspects (codes 7, 8 and 9 in Table A1). Moreover, task-oriented behaviour “facilitates understanding task requirements” (Burke et al., 2006, p. 291).

Relations-oriented behaviour is defined by Burke et al. (2006) as “person-focused behaviours that facilitate the behavioural interactions, cognitive structures, and attitudes that must be formed before members can function effectively as a team” (p. 291). This implies that a person attaches himself or herself as a person to one or more particular people by directly associating oneself as a person (either in the role of the leader or follower) to what one or more followers consider important, in an explicitly positive or negative way. As a result, if a leader’s or follower’s message emphasizes anything of (inter-)personal value, such as encouraging, participating, supporting, or applauding, it can be classified as relations-oriented (Hoogeboom et al., 2021). Consequently, relations-oriented behaviour was coded whenever a leader or follower particularly appointed the development of an individual or follower (i.e., person-focused interaction) or provided help, i.e., by lifting one or more followers' expectation of being supported by the leader or follower (code 10 in Table A1); transforming a person by promoting intellectual contributions and demonstrating that suggestions from others were appreciated (code 11 in Table A1); providing praise to a follower or other team member; or an express (personal) favourable appraisal (code 13 in Table A1); motivating collaborative efforts and boosting participation (code 12 in Table A1); building cooperative connections, based on a common vision, that is designed to improve the level of socioemotional work interactions (code 14 in Table A1) or exchanging personal information to connect on a personal level (code 15 in Table A1). These six positive relationship-oriented behaviours jointly cover the extent to which a leader or follower demonstrates care and respect for his or her followers or team members and their needs, communicates gratitude and support, and develops reciprocal trust (Fleishman, 1953; Judge et al., 2004).

The negative relations-oriented leader communications we classified were either downright impolite or uncivil (codes 16 and 18 in Table A1), or they involved self-promotion (code 17 in Table A1). Instead of reconciliation, togetherness, or collaboration, these were behaviours where a leader caused an increased distance among themselves and one or more followers (Hoogeboom et al., 2021).

Furthermore, whenever a person was not verbally engaging themselves and was not ‘showing disinterest’, the behavioural code ‘listening’ was assigned. Hence, we presume that

we have a reasonably pure analysis of listening, although we did not analyse how deeply the meeting participants listened to what was said by someone else in the meetings since we did not differentiate between active and attentive listening when coding 'listening behaviour' (Kauffeld & Lehmann-Willenbrock, 2012; Van Quaquebeke & Felps, 2018). Therefore, the listening behaviour of those people was assigned as their 'neutral' state.

3.4.3 Job Performance

To measure the individual job performance of the participating team members in this study, the four-item scale of Gibson et al. (2009) is used. Hence, job performance is defined as the general assessment of the effectiveness of the team member, not the specific goal-achievement of this team member (Gibson et al., 2009). To measure the job performance of the individual followers involved in this study, surveys were utilized in which the leader rates his or her individual followers' job performance. For this measurement, the leaders of those meetings filled in a survey where they individually assessed different aspects of the meetings, including the individual job performance of their followers. This survey-based measurement of individual job performance was based on the earlier proposed four-item scale by Gibson et al. (2009) which was developed to measure team performance. Therefore, the four items were rescaled so that it was possible to measure the individual job performance of team members. Accordingly, all team leaders were required to assess the job performance of all their followers by answering four questions on a scale of 1 to 10 that included the following items: (I) "This employee is effective", (II) "This employee makes few mistakes", (III) "This employee delivers high-quality work", and (IV) "This employee continuously performs at high levels. (Gibson et al., 2009, p. 68). The Cronbach's alpha of this scale was 0.950, indicating that the questionnaire questions were well-suited to measure individual job performance because they are higher than 0.7.

3.4.4 Trust in the leader

To measure the followers' trust in their leader, the definition and 11-item scale of McAllister (1995) is used. McAllister (1995) defines trust as "the extent to which a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another". Hence, trust can be regarded as an important phenomenon in interpersonal organizational behaviour. To measure interpersonal trust in organizations and relationships within such organizations, like the relationship between the follower and the leader, McAllister (1995) proposed an 11-item scale to measure affect- and cognition-based interpersonal trust. For this study, we want

to assess followers' trust in their leader. For this measurement, the followers of the recorded meetings that were used in this study were asked to fill in a survey where they individually rated different aspects of the meetings, including their trust in their leader.

Accordingly, all followers were required to rate their trust in their leader by answering 11 questions on a Likert scale from 1 (strongly disagree) to 7 (strongly agree) that included the following items: (I) "This person approaches his/her job with professionalism and dedication", (II) "Given this person's track record, I see no reason to doubt his/her competence and preparation for the job", (III) "I can rely on this person not to make my job more difficult by careless work", (IV) "Most people, even those who aren't close friends of this individual, trust and respect him/her as a co-worker", (V) "Other work associates of mine who must interact with this individual consider him/her to be trustworthy", (VI) "If people knew more about this individual and his/her background, they would be more concerned and monitor his/her performance more closely", (VII) "We can both freely share our ideas, feelings, and hopes", (VIII) "I can talk freely to this individual about difficulties I am having at work and know that (s)he will want to listen", (IX) "We would both feel a sense of loss if one of us was transferred and we could no longer work together", (X) "If I shared my problems with this person, I know (s)he would respond constructively and caring", (XI) "I would have to say that we have both made considerable emotional investments in our working relationships". The Cronbach's alpha of this scale was 0.915, indicating that the questionnaire questions were well-suited to measure followers' trust in the leader because the score is higher than 0.7.

3.5 Data Analysis

After coding the followers' positive and negative relations-oriented verbal behaviours, the verbal transformational leadership behaviour of the leaders, the individual job performance of followers as rated by their leaders, and the followers' trust in their leader were merged into one dataset for statistical analysis. To analyse this dataset and to test the hypotheses in this study, IBM SPSS Statistics was used. Hence, using SPSS a reliability study, descriptive statistics, correlation tests, and regression analyses were carried out.

3.5.1 Factor analysis

To determine the underlying dimensions and evaluate the scale measures of the different variables for our hypotheses, a principal component analysis was performed. Before executing the factor analysis, the adequacy of the sample was checked by using Kaiser-

Meyer-Olkin (KMO; Kaiser, 1970, 1974). According to Field (2000), the sampling adequacy is sufficient if the KMO is > 0.5 . Kaiser (1974) suggests a KMO value of 0.5 minimum and classifies a KMO value between 0.5 and 0.7 as mediocre, KMO 0.7-0.8 as good, and KMO between 0.8 and 1.0 as excellent (Hutcheson & Sofroniou, 1999). The results of the KMO test of this study resulted in a KMO score of 0.923, which indicates an excellent adequate sampling for the performed factor analysis. Furthermore, the statistical significance of the variables' correlation was checked using Bartlett's test of sphericity (Bartlett, 1954), indicating the strength of the relationship among variables that are utilized for factor analysis. If the p-value of Bartlett's test is significant, H_0 may be rejected, indicating that the variables are correlated and hence can be used in factor analysis (Bartlett, 1950). Bartlett's test of sphericity was significant in this study ($p < 0.001$), indicating a correlation between the variables utilized in this study which implies that these variables can be utilized in the factor analysis. Hence, both tests show that the sample can be used for factor analysis.

Then, a principal component analysis with varimax rotation was executed with pairwise deletion. The results of this factor analysis (see Table A3) indicate two factors with an Eigenvalue > 1 , which is in line with the two variables in our hypothetical model: trust in the leader (component 1) and individual job performance (component 2). These two extracted factors accounted for a cumulative percentage of 68% of the total variance explained. Moreover, all of the items load on the same component in the same direction, all items only load on one component and none of the items load on a component with a lower score of 0.3.

After this analysis, we checked for the normality of the data to determine if a Spearman or Pearson correlation should be used. The results revealed that the data is not normally distributed and that the results for multiple variables are scattered and have multiple outliers. Therefore, Spearman's rank correlation, which is a non-parametric test, will be used for the correlation analysis. In the results section, first, the categorized behaviours of both the leaders and the followers in this sample study will be discussed. Respectively, Table 1 will provide an overview of the frequency and duration of the leaders' and followers' task-oriented and positive- and negative relations-oriented behaviours. Then, in section 4.2 the correlation between the variables in the hypothesis of this study will be discussed.

3.5.2 Regression analyses

To test our hypotheses, and thus the potential relationship between two or more variables, the Hayes' PROCESS macro (version 4.0) was used in SPSS. This allowed for bootstrapping to test for the predicted moderated-mediation effect in our research model (Hayes, 2013). To

analyse these expected relationships, we want to test for direct effects, mediating effects and moderating effects. In detail, we want to test if transformational leadership (IV) has a direct effect on job performance (DV), if the positive- and negative relations-oriented behaviour of followers mediates this relationship, and if trust in the leader moderates the relationship between the independent variable and our predicted mediators. To determine if the hypotheses will be accepted and rejected, the regression between two or more variables has to be significant at $p < .05$. If the effect is not found significant at $p < .05$, we reject the hypothesis and thus conclude that there is not enough evidence to support the expected relationship between two or more variables.

4. Results

In this section, the most important results of the analysis will be discussed. First, the descriptive statistics of the different behaviours of the leaders and followers in our sample will be discussed. Then, all hypotheses will be tested and depending on the results the hypothesis will be either accepted or rejected.

4.1 Descriptive statistics

To analyse the data of these coded behaviours and their frequencies and durations, descriptive statistics (Table 1) were calculated for both the leaders (N = 114) and followers' (N = 1,146) behaviours during their team meetings. For these calculations, the earlier assigned 'neutral' state 'listening behaviour' has been excluded. Therefore, Table 1 only focuses on the active behaviours of the leaders and followers during the videotaped team meetings.

When analysing the active behaviour of the leaders, 'informing' is the most frequent behaviour (27.86%) with the relatively longest duration (47.06%) during the recorded team meetings on average. The second most important behaviour for leaders is 'giving own opinion', which accounted for 20.21% of the behavioural frequency and 22.12% of the duration. The behaviour with the lowest frequency for the leaders during the meeting is 'showing disinterest', which only accounted for 0.06% of the frequency and 0.04% of the duration.

In line with this behaviour, on average followers' most dominant behaviour during team meetings is also 'informing', which accounted for 27.50% of the frequency and 41.09% of the duration of the followers' behaviour. Furthermore, followers' second most important behaviour is 'giving own opinion', accounting for 29.10% of the frequency and 31.78% of the followers' behaviour. Thus, the most dominant behaviours of the leaders and followers are similar both in frequency and duration. Both behaviours are task-oriented behaviours, which is, in general, the most frequent behaviour for both leaders and followers with the relatively longest duration. The behaviour which followers showed least during team meetings is 'correcting', which accounted for 0.36% of the frequency and 0.20% of the duration of followers' behaviour on average.

Both for leaders and followers, task-oriented behaviour accounted for the highest percentage of behavioural frequency and duration on average during the team meetings. Secondly, positive relations-oriented behaviour accounted for the second most dominant category of behaviour both for leaders and followers. Lastly, negative relations-oriented behaviour accounted for the lowest percentage of behavioural frequency and duration.

Table 1

Leaders' and followers' active behaviour during team meetings

Behaviour	Leaders		Followers	
	Frequency	Duration	Frequency	Duration
Task-oriented behaviour				
Providing negative task feedback	0.51%	0.40%	2.14%	2.45%
Task monitoring	13.03%	5.81%	14.37%	7.69%
Correcting	0.70%	0.37%	0.36%	0.20%
Directing	1.93%	1.51%	0.32%	0.25%
Informing	27.86%	47.06%	27.50%	41.09%
Structuring	11.54%	8.50%	2.04%	1.41%
Giving own opinion	20.21%	22.12%	29.10%	31.78%
Agreeing on task-related matters	5.65%	1.66%	6.28%	2.42%
Disagreeing on task-related matters	0.97%	0.30%	1.90%	0.83%
Total	82.40%	87.73%	84.01%	88.12%
Positive relations-oriented behaviour				
Individualized consideration	4.31%	2.27%	1.93%	1.84%
Intellectual stimulation	3.55%	2.99%	0.96%	0.96%
Idealized influence behaviour	1.12%	2.20%	0.23%	0.59%
Providing positive feedback	1.87%	0.96%	0.61%	0.33%
Humour	2.84%	1.49%	5.37%	2.93%
Giving personal information	0.86%	0.90%	1.05%	0.94%
Total	14.55%	10.81%	10.15%	7.59%
Negative relations-oriented behaviour				
Showing disinterest	0.06%	0.04%	1.19%	1.89%
Defending one's own position	1.25%	1.05%	1.26%	1.31%
Interrupting	1.74%	0.37%	3.39%	1.09%
Total	3.05%	1.46%	5.84%	4.29%
Total	100.00%	100.00%	100.00%	100%

4.2 Correlation Analysis

Before testing the hypothesis, we first want to check if there is a correlation between the different variables used in this study. Therefore, we check the strength of the correlation

between the variables and whether that correlation is either positive or negative. In Table 2 we focus on the correlations between variables in our model.

Table 2

Means, standard deviations, and intercorrelations of model variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
Frequencies of behaviour								
1. TFL behaviour (video-observed)	28.93	7.99						
2. Perceived TFL (by followers)	5.25	0.80	.01					
3. Positive relations-oriented follower behaviour	0.78	1.22	.01	.07*				
4. Negative relations-oriented follower behaviour	0.49	0.95	-.10**	-.01	.41**			
5. Job performance	7.18	1.24	.01	.17**	.17**	.04		
6. Trust in the leader	5.59	0.88	.01	.73**	.10**	.05	.14**	
Durations of behaviour								
1. TFL behaviour (video-observed)	29.00	9.74						
2. Perceived TFL (by followers)	5.25	0.80	-.02					
3. Positive relations-oriented follower behaviour	0.59	1.89	.01	.06*				
4. Negative relations-oriented follower behaviour	0.33	1.00	-.05	-.01	.38**			
5. Job performance	7.18	1.24	-.07*	.17**	.17**	.05		
6. Trust in the leader	5.59	0.88	-.01	.73**	.08**	.05	.14**	

Note(s): Use was made of a 7-point Likert scale for perceived TFL (by followers) and trust in the leader, and a 10-point Likert scale for job performance. ** $p < 0.01$ * $p < 0.05$

In Table 2, we find roughly similar correlations between the duration and frequencies of behaviour and the other variables in our research model. In contrast with hypothesis 1, we find that the duration of leaders' transformational leadership behaviour negatively correlates with job performance ($p < 0.05$). This finding is very remarkable, as the negative direction of this correlation is not in line with the current literature that positively connects transformational leadership to individual job performance. Furthermore, we find that both the frequency and duration of positive relations-oriented follower behaviour significantly

correlate positively to job performance ($r = .17, p < .01$). Then, a strongly positive correlation was found between the frequency ($r = .41, p < .01$) and duration ($r = .38, p < .01$) of negative relations-oriented follower and positive relations-oriented behaviour. Last, trust in the leader significantly correlates to job performance positively ($r = .14, p < .01$). As no correlations in Table 2 are higher than .7, we can exclude multicollinearity between the variables.

As our study utilizes a novel measurement of transformational leadership, namely video observations, we also checked for a correlation between the survey-based measurement of transformational leadership (Perceived TFL in Table 2) and both the video observed frequency and duration of leaders' transformational leadership behaviour (TFL behaviour in Table 2). The results reveal that there is no correlation between the survey-based measurement and thus the transformational leadership scale results and the video-coded measurement of transformational leadership behaviour of the leaders in our sample. Hence, we can conclude that there is a difference between the followers' perception of their leaders' transformational leadership behaviour and the actual transformational leadership behaviour that leaders show. In line with our hypotheses, the survey-based measurement of transformational leadership positively correlates with positive relations-oriented follower behaviour ($r = .06, p < .05$) and job performance ($r = .17, p < .01$).

4.3 Hypotheses testing

To answer the research question, the outcomes of the hypothesis testing, as illustrated in Figures 2 and 3, will be reported and discussed in this section.

4.3.1 Transformational leadership and job performance

Based on the existing literature that positively connects transformational leadership to job performance (e.g. Avolio & Bass, 1995; Barling et al., 1996; Dvir et al., 2002; Lowe et al., 1996a; McCann et al., 2006), we expected that transformational leadership behaviour of the leader would have a positive effect on the individual job performance of the followers. Hence, in hypothesis 1 we stated that transformational leadership has a positive effect on individual job performance. Not in line with this prediction, the results of the regression analysis show that the frequency of transformational leadership as shown by the verbal behaviour of the leader has a negative effect on the individual job performance of followers of this leader ($\beta = -.012, p = .555$). However, this effect was not significant.

Furthermore, and more importantly, the results show that the duration of the transformational leadership behaviour of the leaders has a negative effect on job performance.

In detail, the results reveal a significant relationship between transformational leadership duration and job performance, in the negative direction ($\beta = -.048, p = .003$). Thus, the longer the duration of the leaders' transformational leadership behaviour, the lower the job performance of the followers of this leader. In addition, this outcome is in line with the negative correlation between transformational leadership and job performance that was shown in Table 2. Furthermore, we tested if this effect also exists if the other variables were not included in the model. Results of simple regression between transformational leadership duration and job performance showed a significant negative relationship ($\beta = -.043, p = .007$). Therefore, hypothesis 1 was rejected.

4.3.2 Transformational leadership and positive relations-oriented follower behaviour

Hypothesis 2a predicted that positive relations-oriented follower behaviour would. First, we tested if the frequency of positive relations-oriented behaviour mediates the relationship between the frequency of transformational leadership behaviour of the leader and job performance. The results revealed that the frequency of positive relations-oriented follower behaviour does not mediate this relationship significantly ($\beta = .001, CI = [-.005, .007]$).

Then, we tested the potential mediating effect of the duration of positive relations-oriented follower behaviour for the relationship between transformational leadership duration and job performance. Similar to the results of the frequencies, the outcome shows that positive relations-oriented behaviour duration does not mediate this relationship significantly ($\beta = .000, CI = [-.002, .002]$). Hence, both results indicate that either the frequency and duration of positive relations-oriented follower behaviour does not affect and therefore mediate the relationship between transformational leadership behaviour and individual job performance. Hence, hypothesis 2a is rejected.

4.3.3 Transformational leadership and negative relations-oriented follower behaviour

Hypothesis 2b stated that negative relations-oriented follower behaviour would positively mediate the relationship between transformational leadership and job performance. First, we tested if the frequency of negative relations-oriented behaviour mediates the relationship between the frequency of transformational leadership behaviour of the leader and job performance. Then, we tested the potential mediating effect of the duration of negative relations-oriented follower behaviour for the relationship between transformational leadership duration and job performance. The results revealed that the frequency of negative relations-oriented follower behaviour does have a mediating effect on this relationship ($\beta = .000, CI =$

[-.004,.003]). In line with this finding, the results show that the duration of negative relations-oriented follower behaviour does not mediate the relationship between transformational leadership duration and job performance ($\beta = .001$, CI = [-.001,.004]). Thus, both results indicate that either the frequency and duration of negative relations-oriented follower behaviour does not affect and therefore mediate the relationship between transformational leadership behaviour and individual job performance. Hence, hypothesis 2b is rejected.

4.3.4 Transformational leadership and relations-oriented follower behaviour with trust in leader as moderator

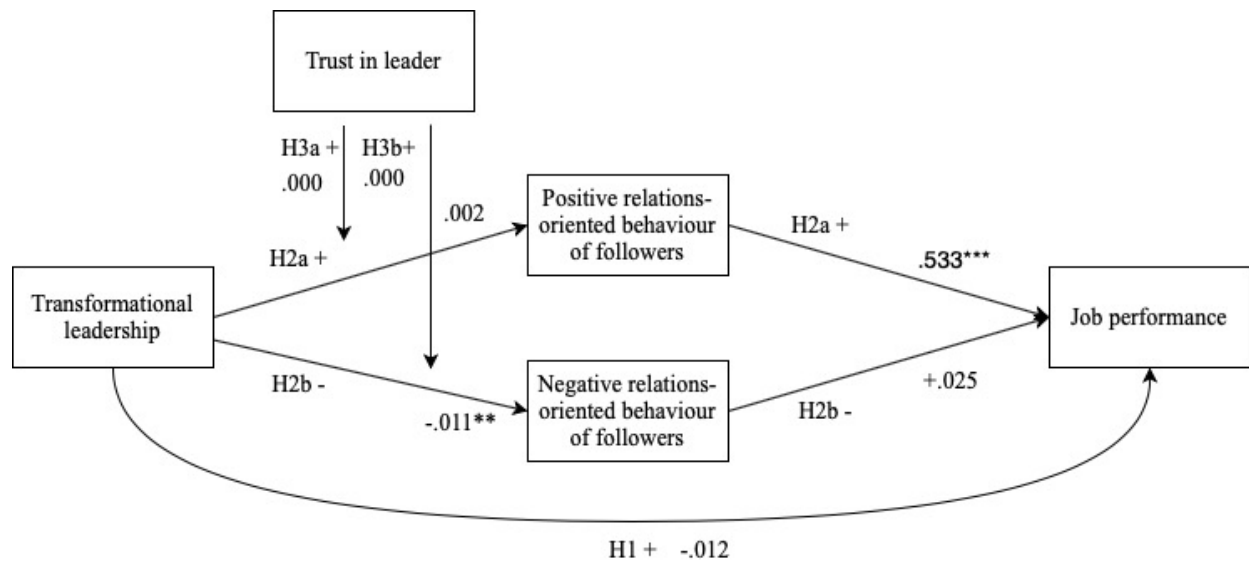
Hypothesis 3a stated that trust in the leader would moderate the positive relationship between transformational leadership and the positive relations-oriented behaviour of followers. Thus, we expected that when followers have high trust in their leader, the relationship between transformational leadership of the leader and positive relations-oriented behaviour of the follower would become stronger and when the followers' trust in the leader would be low, the relationship would be less strong. To test the potential moderating effect of trust in the leader on this relationship, an analysis was executed using Hayes' PROCESS. The results revealed that trust in the leader was not moderating the relationship between transformational leadership and positive relations-oriented behaviour. In detail, when we looked at the potential moderating effect of trust on the relationship between the frequency of transformational leadership behaviour and the frequency of positive relations-oriented follower behaviour, the output showed a moderating effect of zero which was non-significant ($\beta = .000$, CI = [-.001, .001]). Furthermore, for the potential moderating effect of trust on the relationship between the duration of transformational leadership behaviour and the duration of positive relations-oriented follower behaviour, the moderating effect was also zero ($\beta = .000$, CI = [.000, .001]). Therefore, hypothesis 3a was rejected.

Hypothesis 3b predicted that trust in the leader would moderate the negative relationship between transformational leadership and the negative relations-oriented behaviour of followers. Hence, we predicted that when followers have high trust in their leader, the relationship between transformational leadership of the leader and negative relations-oriented behaviour of the follower would become stronger and when the followers' trust in the leader would be low, the relationship would be less strong. Similar to testing hypothesis 3a, we used Hayes' PROCESS for this purpose. The results show that trust in the leader does not moderate the relationship between transformational leadership and negative relations-oriented behaviour. In detail, the potential moderating effect of trust on the

relationship between the frequency of transformational leadership behaviour and the frequency of negative relations-oriented follower behaviour was zero and non-significant ($\beta = .000$, $CI = [.000, .000]$). Similarly, the results show that for the relationship between the duration of transformational leadership behaviour and the duration of positive relations-oriented follower behaviour, the moderating effect of trust in the leader was also zero ($\beta = .000$, $CI = [.000, .000]$). Hence, hypothesis 3b was rejected.

Figure 2

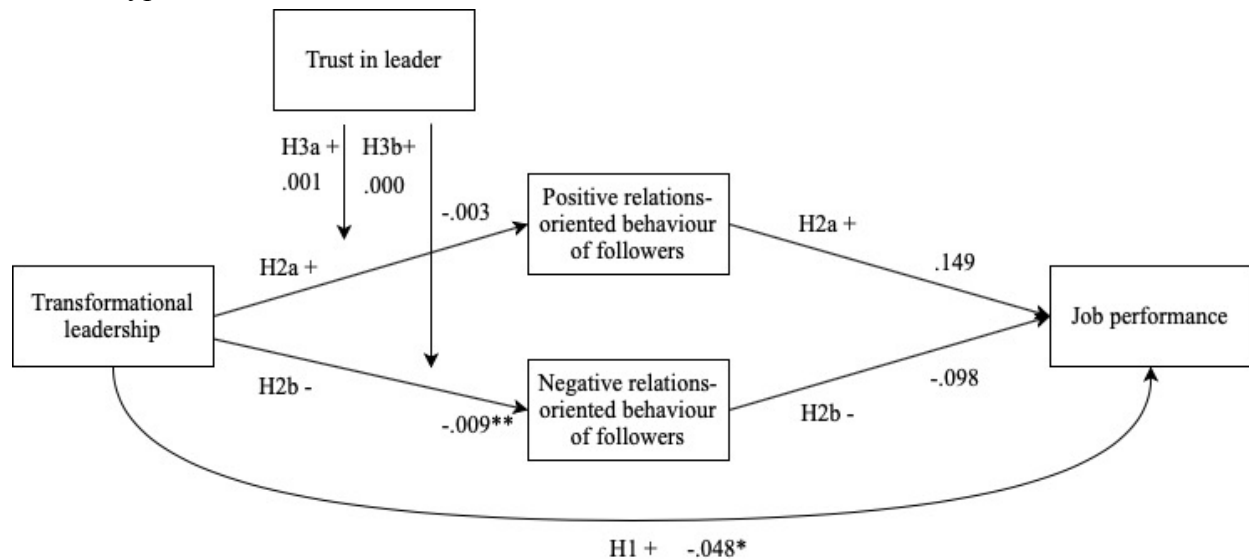
Results hypothetical model for frequencies of behaviour



*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$

Figure 3

Results hypothetical model for durations of behaviour



*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$

4.3.5 Transformational leadership behaviour versus transformational leadership scale

Since there was no correlation between our novel measurement of video-observed transformational leadership behaviour and the survey-based measurement of transformational leadership, we will re-test our hypotheses using the survey-based measurement of transformational leadership to check if the results are different and check if our hypotheses would be accepted if we utilized a different measurement of transformational leadership. The results of our hypothetical model can be found in Figures C1 and C2 in Appendix C. The findings show that, consistent with hypothesis 1, the survey-based measurement of transformational leadership behaviour has a significant positive effect on job performance ($\beta = .052, p = .000$). In contrast to hypotheses 2a and 2b, the results reveal that the frequency and duration of positive- and negative relations-oriented follower behaviour do not significantly mediate this relationship. Finally, in contrast to hypotheses 3a and 3b, no evidence was found for the moderating effect of trust in the leader for the relationship between transformational leadership and relations-oriented follower behaviour.

4.4 Summary of the results

To test if our hypothesized moderated-mediation model that was predicted based on theory and literature showed different significant relationships, we tested multiple hypotheses. Figures 2 and 3 show these hypotheses and the results of the regression analysis that was performed for this study. Surprisingly, all of our hypotheses were rejected. This as the results revealed either insignificant or non-existent relationships, or the results show that the effect occurred in the opposite direction. Although the relationships we expected were not found and our hypotheses were rejected, we did find two important relationships that will contribute to the literature on (transformational) leadership.

First, an important finding is that a significant negative correlation was found between the duration of transformational leadership behaviour of the leader and the individual job performance of followers ($r = -.07, p < 0.05$). In line with this finding, the results of the regression analysis also show that the duration of transformational leadership behaviour of the leader has a significant negative effect on followers' individual job performance ($\beta = -.048, p = .003$). Hence, the longer the duration of transformational leadership behaviour of the leaders during team meetings, the lower the job performance of the individuals in that team.

Second, we find that positive relations-oriented follower behaviour has a positive effect on job performance. Hence, followers who show more positive relations-oriented behaviour generally show higher job performance. In detail, the frequency of positive

relations-oriented follower behaviour significantly regresses positively on job performance ($\beta = .533, p = .000$). The duration of positive relations-oriented follower behaviour also regresses positively on job performance; however, this effect is not significant at the alpha 0.05 level but it is nearly marginally significant ($\beta = .149, p = .101$). In line with these findings, we found that both the frequency and duration of positive relations-oriented follower behaviour positively correlate to job performance significantly ($r = .17, p < 0.01$). Therefore, we conclude that there is enough evidence to state that the duration of positive relations-oriented follower behaviour has a positive effect on their individual job performance.

5. Discussion and Conclusion

5.1 Key Findings

This study contributes to the scientific literature on leadership by utilizing minutely coded leaders' and followers' verbal behaviour. This innovative and objective measurement of behaviour allows us to objectively study behavioural durations and frequencies of both leaders and followers to test different hypotheses. Our findings provide new insights into the transformational leadership theory as we find that the duration of leaders' transformational leadership behaviour has a negative effect on followers' individual job performance. This result is an important addition to the literature, as it contradicts the transformational leadership literature to date that connects transformational leadership to job performance positively, relying on survey-based measurement of transformational leadership. Hence, we find a discrepancy between the perception of transformational leadership behaviour and the observed transformational leadership behaviour, since no correlation was found between our survey-based measurement of transformational leadership and the observed behaviour. Furthermore, the results reveal that the duration and frequency of positive relations-oriented follower behaviour have a positive effect on followers' individual job performance.

5.2 Theoretical Implications

This study's findings have at least three theoretical implications. First, we show that the duration of leaders' transformational leadership behaviour has a negative effect on followers' job performance. Although previous studies have connected transformational leadership to job performance positively, the majority of those studies are survey-based, relying on follower judgements of leader actions and therefore having the weakness of possible follower bias when analysing the leader's behaviour (Anderson & Sun, 2017). The behavioural analysis of transformational leadership enhances our understanding of the influence of transformational leadership, bringing us closer to the objective measurement of the effect of this type of leadership on job performance. Our findings show no correlation and thus a discrepancy between the survey-based measurement of transformational leadership and the observed verbal transformational leadership behaviour of leaders. This might explain why our findings contradict prior evidence claiming that transformative leadership improves job performance. Furthermore, van Dun et al. (2017) found that effective leaders engage in active listening at a considerably higher frequency than other leaders. This may explain why there is a negative relationship between transformational leadership duration and job performance.

Hence, it can be argued that leaders who have engaged in transformational leadership verbal behaviour for a longer duration may be overly vocal and should find a balance between listening and verbal transformational leadership behaviour to activate their followers and increase job performance.

It should be emphasized that these findings may be influenced by the setting in which this study was conducted, which was a Dutch governmental organization. In contrast with our findings, the findings of Mumford & Van Doorn (2001) suggested that transformational leadership may be more effective in governmental organizations (Anderson & Sun, 2017). Moreover, given the service and community-oriented character of governmental organizations, Wright & Pandey (2010) argue that transformational leadership should be especially effective in this type of organization (Barth-Farkas & Vera, 2014). However, governmental organizations are sometimes assumed to operate from a more bureaucratic and mechanistic structure, which may limit the influence of transformational leadership (Bass, 1985). This rather mechanistic operational characteristic could create boundaries in the shape of structures and processes instead of generating possibilities for leadership (Lowe et al., 1996b). Hence, it should be considered that the teams in this type of organization may not require transformational leaders to boost job performance. Following the path-goal theory of leadership, it can be argued that transformational leadership may not have been the best leadership style for the followers in this study, and thus the leaders' transformational leadership may not have been as effective and thus beneficial to the followers' job performance (Anderson & Sun, 2017; Northouse, 2016). As a result, we doubt if transformational leadership is equally effective in every situation, team, and organizational culture and thus if its effect depends on the specific context.

Second, we found that both the positive and negative relations-oriented behaviour of followers does not mediate the relationship between a leader's transformational leadership and job performance. However, exploring this potential mediator resulted in two other findings. Firstly, we found a strong correlation between the positive and negative relations-oriented behaviour of followers. Thus, followers who show a higher frequency or duration of positive relations-oriented behaviour also show more negative relations-oriented behaviour and vice versa. Secondly, the results show that leaders' transformational leadership behaviour has a significant negative effect on the frequency and duration of followers' negative relations-oriented behaviour. On the other hand, transformational leadership has no evident influence on followers' positive relationship-oriented behaviour. Therefore, our findings do not support our predictions, which are based on the social learning theory, that argues that

followers are motivated to copy their role models' behaviour and therefore adjust their behaviour to that of their transformational leader (e.g., Sy et al., 2005; Sy & Choi, 2013). However, as mentioned in the paper of Van Dun & Wilderom (2021), it takes time for followers to align their behaviour with that of their leader and thus it can be argued that frequent interactions with their transformational leaders over time are necessary for followers' to adjust their behaviour to match the leader's transformational, and hence positive relations-oriented, behaviour.

Third, our findings reveal that followers' trust in the leader does not mediate the relationship between the leader's transformational leadership behaviour and followers' relations-oriented behaviour. We did, however, discover a link between trust in the leader and both the duration and frequency of positive relations-oriented follower behaviour. This suggests that, as predicted, trust in the leader has a favourable influence on followers' positive relations-oriented behaviour. Furthermore, the correlation study results show that trust in the leader is favourably related to job performance. Hence, the higher the follower's trust in their leader, the higher their individual job performance. This is consistent with current research literature that links trust in the leader to improved job performance (e.g. Konovsky & Pugh, 1994; Mayer & Gavin, 2005; Yukl, 1989).

5.3 Strengths, limitations and future research

Important strengths of this study are the large sample size of 113 leaders and 1486 followers and the novel and measurement of specifically transformational leadership behaviour, by using leaders' minutely-coded verbal transformational leadership behaviours. This is a strength since previous studies have often utilized survey-based measurement of transformational leadership by relying on the followers' subjective perception and rating of the transformational leadership behaviour of their leader. Hence, this contributes to more reliable results which are less prone to subjectivity. This strength was demonstrated by the results of this study, which revealed different findings than the results of prior survey-based studies on transformational leadership behaviour. Thus, the precise behavioural data used in this study contributes to the detailed measurement and observation of occurring phenomena, which strengthens the analysis of behaviour for this research.

However, a limitation of this study lies in the measurement of transformational leadership behaviour. In detail, the leaders' transformational leadership behaviour that was used for this study is nested within teams, meaning that every team has one value of transformational leadership behaviour of the leader. Thus, for all individual followers of the

same team, the same value of transformational leadership was coded as multiple followers have the same leader and thus the same level of transformational leadership in their team. Since the transformational leadership behaviour for every follower within the same team is the same, this can be regarded as a limitation as it should be recognized that this same transformational leadership can have a very different effect on every individual follower.

Furthermore, we might debate whether it is reasonable to predict that relationships observed in previous survey-based studies will be found in behavioural data analysis. As we discovered, none of the predicted relationships was found, and hence all hypotheses were rejected. As a result, we may infer that there is a significant difference between testing for correlations between phenomena that rely on perceptions and testing for relationships that rely on behavioural data. As a result, we advise that future research does not presume that earlier correlations discovered in survey-based data will be discovered when analysing behavioural data. Thus, we propose that future research should investigate various links between behavioural phenomena that have previously been investigated using survey-based data. This is to test if the predicted relationships are present in organizational behaviour.

Given the novel insights obtained from this behavioural study on transformational leadership theory, we believe that more leadership research is needed. Rather than expanding research on transformational leadership theory, we propose that additional research should be conducted on both leadership and follower behaviour. Although numerous researches have been undertaken on this topic to date, we believe there is a need to re-examine earlier findings that rely on survey-based behaviour assessment. As a result, we advise that future studies use behavioural data for analysis to avoid bias and subjectivity when measuring behaviour.

Finally, because the findings of this study differ considerably from the findings of other studies conducted over the last few decades, we believe that the transformational leadership theory should be revisited and perhaps modernized. Organizational contexts have rapidly changed since the introduction of Burns' transformational leadership theory in 1978. At this time, the Full Range of Leadership Model (FRLM) was founded, which distinguishes three leadership styles: transformational, transactional, and laissez-faire leadership. Avolio & Bass (1995, pp. 207–208) established four components for measuring transformational leadership. Over the last decades, a wide range of leadership literature has been published, and new types of leadership styles have been identified. This literary development in combination with the novel findings of this study supports the importance of the recent request of Anderson & Sun (2017) to identify a more defined set of leadership styles and, as a result, establish a new 'full range' or 'fuller range' leadership model that will help academics

to develop a more cohesive understanding of literature. As a result, we believe that the full range of leadership model should be updated to build a more comprehensive and actualized leadership model that combines the leadership literature of the previous decades.

5.4 Practical implications

Our findings contradict the widely held belief that transformational leadership increases job performance. Based on the study's findings, we urge that leaders should be aware that a longer duration of transformational leadership might result in lower individual job performance of their followers. As a result, we recommend that leaders in a context similar to that of our research, a governmental organization, should not devote too much time to transformational leadership behaviour. We believe that in team meetings, leaders should limit the duration of their verbal transformational leadership behaviour to give followers enough space to verbally engage while actively listening to their input and ideas to motivate them to perform to the best of their abilities.

We recommend that when analysing leadership inside firms, video-observed behaviours should be used rather than employee perceptions of leadership. As the findings of this study show, there might be a gap between employees' perceptions of leadership and video-observed behaviour of those same leaders. As a result, we propose that organizations employ video observations to examine certain areas of leadership inside their company.

Furthermore, we believe that leaders should focus on building trust between themselves and their followers. This is because followers' trust in the leader was found to have a favourable direct effect on job performance, as well as followers' positive relations-oriented behaviour, which was also connected positively to job performance. Organizations should grant leaders enough time to build relationships with their followers, and leaders should be careful of expecting immediate positive results from their leadership behaviour since this is a process that will most likely take time rather than show immediate results.

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Appendix A.

Video-coded behaviours

Table A1

Definitions and examples of categories of video-coded behaviours.

	Coded behaviour		Definition	Example
1.	Providing negative task feedback	Task	Addressing discrepancies in team members' performance-goal accomplishment	"I do not think that this is a good solution" "In August I sent an email with amendments, and I find it regrettable that at least half of the attendees do not know the content of this e-mail"
2.	Task monitoring	Task	Asking team members for clarification and confirmation about (the progress on) their tasks	"How is the project progressing" "Do you also have a specific role in that process, since there might be possibilities for a follow-up project"
3.	Correcting	Task	Imposing disciplinary action; Presenting team members with a "fait accompli"	"Yes, but that is the wrong decision" "Now you are talking about a failure fine, however, this is a different type of fine"
4.	Directing	Task	Dividing tasks among followers (without enforcing them); Determining the current direction	"John, I'd like you to take care of that" "Jack, I want you to ..."
5.	Informing	Task	Giving factual information	"The budget for this project is..." "The sick-leave figure is relatively low"
6.	Structuring	Task	Structuring the meetings; Changing the topic; Shifting towards the next agenda point	"We will end this meeting at 2 pm" "Maybe, we need to discuss this point after you are finished"
7.	Giving own opinion	Task	Giving one's own opinion about what course of action needs to be followed for the organization, department or the team	We already discussed this, let's talk especially about how we can avoid these things in the future" "In my opinion, we should..."
8.	Agreeing on task-related matters	Task	Agreeing with something; Consenting to something	"This also reflects how I personally think about the matter" "Yes, I agree with you"
9.	Disagreeing on task-related matters	Task	Contradicting team members	"That is not correct" "I have to disagree with you on this point"
10.	Individualized consideration	Positive relations	Paying attention to each individual's need for achievement and growth by acting as a coach or mentor and creating a supportive climate	"We offer a training course in August, which might be helpful for your career planning" "You can make a note of that request, I am willing to help you with it"
11.	Intellectual Stimulation	Positive relations	Asking for ideas, stimulating team members to critically think about team tasks, opportunities and so on, including the questioning of assumptions; Thinking about old situations in new ways	"Yes, if you have any ideas put them together and discuss it with me or Jan" "We will discuss how we can reduce this number together"
12.	Idealized influence behaviour	Positive relations	Talking about an important collective sense of vision; Talking about important values and beliefs	"I find it important that we all work in unison towards this shared objective" "Until Vision 2020 is more clearly specified we will be operating under these standards; It is important to follow this agreed line"
13.	Providing positive feedback	Positive relations	Positively evaluating and rewarding the behaviour and actions of team members	"How you approach the project is much better than 3 months ago" "I am delighted to see that you did not passively wait, but rather pro-actively came with a proposal"

14.	Humour	Positive relations	Making jokes or funny statements	Often jokes are made within the context of the interaction. When 3 or more members laugh the code 'humour' is assigned
15.	Giving personal information	Positive relations	Sharing personal information (e.g., about the family situation)	"We had a lovely holiday" "My mother is doing better now, thank you"
16.	Showing disinterest	Negative relations	Not taking any action (when expected)	Not listening actively
17.	Defending one's own position	Negative relations	Emphasizing one's leadership position; Emphasizing self-importance	"I am the manager within this organization" "We do it my way because I am the manager"
18.	Interrupting	Negative relations	Interfering or disturbing when other team members are talking	Disrupting other team members when they did not finish their sentence
19.	Listening	Listening	Active listening	Nodding, paraphrasing

Note(s): Table 1 reprinted from "Physiological arousal variability accompanying relations-oriented behaviours of effective leaders: Triangulating skin conductance, video-based behaviour coding and perceived effectiveness", by Hoozeboom et al., 2021, *The Leadership Quarterly*, Volume 32 p. 8.

Appendix B.

Factor Analysis

Table B1
Factor Analysis Loadings

Item	Trust in the leader	Individual job performance
Other work associates of mine who must interact with this individual consider him/her to be trustworthy	.856	
Most people, even those who aren't close friends of this individual, trust and respect him/her as a co-worker	.840	
If people knew more about this individual and his/her background, they would be more concerned and monitor his/her performance more closely	.839	
I would have to say that we have both made considerable emotional investments in our working relationships	.826	
This person approaches his/her job with professionalism and dedication	.815	
I can talk freely to this individual about difficulties I am having at work and know that (s)he will want to listen	.814	
If I shared my problems with this person, I know (s)he would respond constructively and caring	.802	
We can both freely share our ideas, feelings, and hopes	.791	
We would both feel a sense of loss if one of us was transferred and we could no longer work together	.723	
I can rely on this person not to make my job more difficult by careless work	.658	
Given this person's track record, I see no reason to doubt his/her competence and preparation for the job	.508	
This employee continuously performs at high levels		.951
This employee makes few mistakes		.943
This employee delivers high-quality work		.937
This employee is effective		.893

Extraction method: Principal Component Analysis

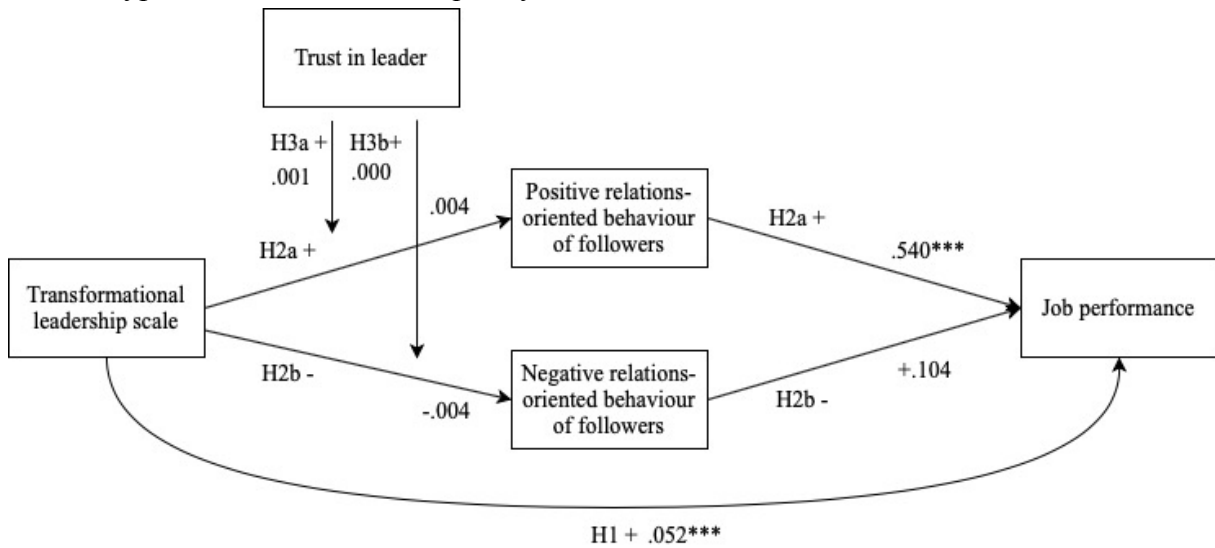
Rotation Method: Varimax with Kaiser Normalization

Kaiser-Meyer-Olkin measure is 0.923 and Bartlett's test of sphericity is significant ($p < .001$)

Appendix C

Figure C1

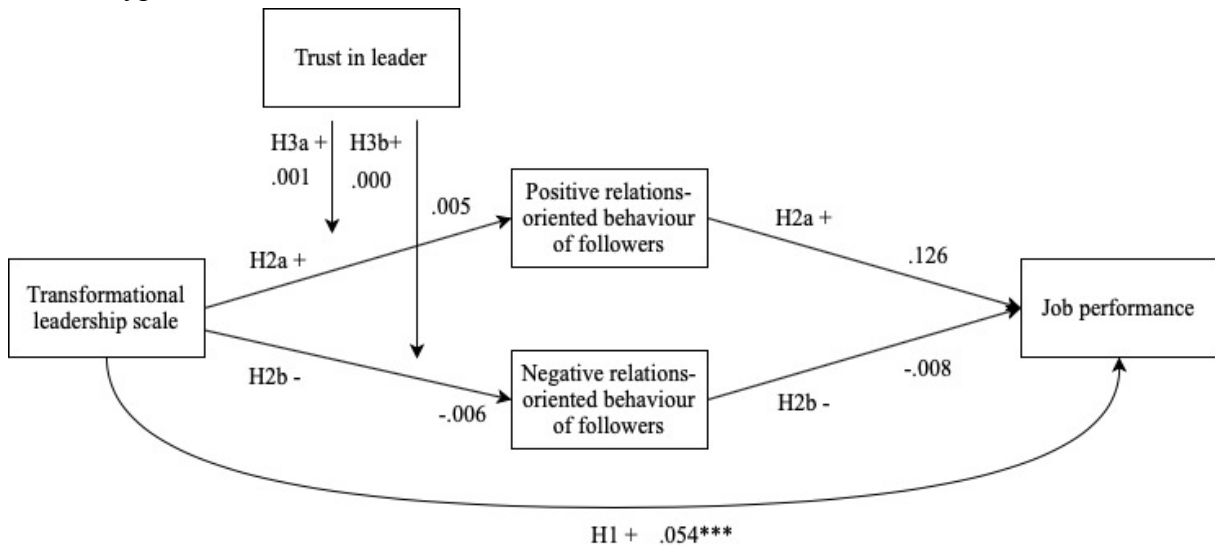
Results hypothetical model for frequency of behaviour



*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$

Figure C2

Results hypothetical model for durations of behaviour



*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$