

Major characteristics of verbal interrupting behavior in leader-follower interaction: an explorative research

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ABSTRACT,

Purpose: This research aims to provide insight in the relationship of interrupting behavior with verbal behaviors, employee effectiveness, job satisfaction, work values and affective states. Correlations are used to indicate relationships between interrupting behavior and the variables mentioned above. The relationships will be tested for leaders, followers and employees. This thesis tries to answer the research question: “*What are major characteristics of interrupting behavior within teams of a public organization in the Netherlands?*”.

Research design: Two types of data will be used; individual questionnaires responses and coded behavior of employees team meetings. The coded behavior is coded with the CMOB codebook. With the use of SPSS, the data is analyzed to make correlation tables. The findings will help answer the research question.

Findings: Leaders and employees who steer the conversation interrupt more than those who do not. Males interrupt more than females. Leaders with high job-satisfaction, traditional work values and positive affect interrupt more, while leaders who express their own opinion and have a transformational leadership style interrupt less. Followers which express their own opinion, give negative feedback have a higher education level interrupt more, while followers with traditional and accommodating work values interrupt less. There are no significant relationships between effectiveness and interrupting found within both the leaders and followers.

Discussion: Future research can elaborate on the findings of the present study by performing multiple regression analyses on the significant outcomes of this study. Potential future research should include the relationship between states of affect and interrupting behavior and work values and interrupting behavior. Furthermore future research could test the outcomes of this study on team level.

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Keywords

Interrupting, verbal interaction, leader-follower interaction, work values, job-satisfaction, affective states

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1. INTRODUCTION

1.1 Foundation for the research

Traditionally, teams consist of two types of individuals: the leaders - also referred to as managers - and the followers. The leader directs tasks to the followers align followers to their vision and ensure the execution of tasks (Lord, Brown & Freiberg, 1999). Obviously leaders and followers communicate; this communication can either be non-verbal or verbal. Verbal communication can be divided into procedural behavior, action-oriented behavior, task-oriented behavior and relation-oriented behavior. Where procedural and action-oriented behavior consist of respectively goal orientation and expressing positivity (Meinecke, Kauffeld & Lehmann-Willenbrock, 2017). Task-oriented behaviors concern the degree to which leaders organize and define their own leadership and the roles of their followers (Fleishman, 1953; Judge, Piccolo & Ilies, 2004; Meinecke et al., 2017). On the other hand, relation-oriented behavior focuses primarily on the leaders' concern, support, expression of appreciation and respect for their followers. Contradicting to task-relation behavior, which focuses more on the outcomes, relation-oriented behavior focuses on the process to the outcomes. Within relation-oriented behavior there are three types of behavior distinguished; positive relation-oriented behavior, neutral relation-oriented behavior and negative relation-oriented behavior (Meinecke et al., 2017). Positive relation-oriented behavior consists of leaders positively stimulating their followers in several ways, examples of this behavior are; encouraging participation, providing support and express feelings. Neutral relation-oriented behavior can be summarized as listening and verbal reactions of individuals who are listening. Examples of this specific behavior are; "yes", "ok" and "uh-huh". Negative relation-oriented behavior includes criticizing, self-promotion and interrupting. In the current literature, interrupting behavior on itself, as well as the relationships regarding interrupting behavior is not extensively researched, there are however studies which focus on types of interaction behaviors e.g. (Meinecke et al., 2017).

1.2 Current study and objective

Therefore, the purpose of the present study is to extend our understanding of interrupting behaviour tendencies. Interrupting is considered as a broad term, which is defined as the break of continuity. A deeper understanding of interrupting can be described as the continuous progress of an activity or process (Cafaro, Glas & Pelachaud, 2016). There are several researches about the outcomes of verbal interruption, such as the interruption of technology within conversations of married couples and its negative outcome on personal life and relationships (McDaniel & Coyne, 2016). And the results of different functions in interrupting behavior (Cafaro et al., 2016). Within the researches of McDaniel and Cafaro (2016) interruption is included in the negative relation-oriented behavior group, but the relationships of interrupting behavior on itself with other variables are not researched; up to this point researchers only investigated the effects of relation-oriented behaviors e.g. (Meinecke et al., 2017). This research primarily aims to get a better understanding of the major characteristics of interrupting behaviour by investigating the relationships between interrupting behavior and various verbal behaviors of team members, work values, affective states and effectiveness of both leaders and followers. As well as contributing to a rather under-investigated field of relation-oriented behaviour and raise attention for further research. In practical terms, this research aims to contribute to the comprehensibility of interrupting of employees and different verbal behaviour of leaders and followers regarding interrupting.

1.3 Research question

Since the literature does not consist of significant information regarding the characteristics of interrupting behavior, this study aims to answer the following research question:

“What are major characteristics of interrupting behavior within teams of a public organization in the Netherlands?”

To answer this question the effects are split into three sub questions. The first possible relationships of interrupting behavior that will be investigated concerns the leaders; are there relationships between interrupting behavior and the verbal behaviors, effectiveness, leadership types, work values, job-satisfaction and affective states of leaders? This question will be translated into leader characteristics.

1. What are the possible relationships between interrupting behavior and specified characteristics concerning leaders?

The second possible relationships of interrupting behavior that will be investigated concerns the followers; are there relationships between interrupting behavior and the verbal behaviors, effectiveness, work values, job-satisfaction and affective states of followers? This question will be translated into follower characteristics.

2. What are the possible relationships between interrupting behavior and specified characteristics concerning followers?

The third possible relationship of interrupting behavior affects all employees, regardless of their leader or follower position; are there relationships between interrupting behavior and the effectiveness, work values and affective states in general?

3. Are the possible relationships between interrupting behavior and specific variables in general?

The structure of this report is as follows. At first there is a literature review on the positioning of interrupting in existing theories. The theoretical framework also consist of the possible relationships of various variables with interrupting. Secondly, the methodology of this research is described. Thirdly, the results are specified, then the discussion is reviewed. Lastly the limitations, future research options and conclusion is stated.

2. THEORETICAL FRAMEWORK

In the following section, the theory that is relevant for this paper is described. First the leader member exchange quality will be discussed. Secondly the full range leadership theory based on effectiveness will be discussed. Then the follower effectiveness and concluding other factors as job satisfaction, work values and affective states will be discussed.

2.1 Leader-member exchange quality

Interrupting behavior is a form of interaction between leader and followers or between followers only, these interactions are all part of verbal interaction. In order to investigate these interactions, the leader-member exchange quality (LMX) will be used. The main tenant of the leader-member exchange quality is that through different types of exchanges, leaders differentiate in the way they treat their followers. This obviously leads to different quality in relationships between the leader and each follower (Volmer, Niessen, Spurk, Linz & Abele, 2011). The LMX is closely related to the leadership tradition theory, In order to identify the origin of interrupting behavior, the Ohio state leadership tradition is taken into account. (Judge et al., 2004; Schriesheim & Bird 1979). These early leader behavior studies identified two broad, overarching dimensions of leader behavior; initiating structure (i.e., task-oriented behavior) and

consideration (i.e., relation-oriented behavior; Fleishman, 1953). The first dimension of leader behavior is defined as the degree to which a leader defines and organizes the roles of his or her followers as well as his own leadership role (Fleishman, 1953; Judge et al., 2004, p.37). This task-oriented behavior can be arranged into three larger categories, which are; short term planning, clarify task objectives and responsibilities and monitoring operations and performance (Yukl, Gordon, & Taber, 2002). The second dimension is referred to as relation-oriented behavior; the degree to which a leader shows concern and respect for his or her followers and their needs, expresses appreciation and support and fosters mutual trust (Fleishman, 1953; Judge et al., 2004). Only relation oriented leader behavior, but not task-oriented leader behavior was positively related to employees taking initiative (Michel & Tews, 2015). An explanation for this effect is that relation-oriented leader behavior increases mutual trust and cooperation between supervisors and their employees, which in turn promote employee engagement (Yukl, 2010) and therefore has a positive effect on job performance.

Relation oriented behavior can be split into three categories, respectively; positive relation oriented behavior, neutral relation oriented behavior and negative relation oriented behavior (Meinecke et al., 2017). Positive relation-oriented behaviors include: (1) supporting, (2) developing, (3) recognizing, (4) consulting and (5) empowering (Yukl et al., 2002, p.18). Supporting is the core competent of consideration (Stogdill, Goode, & Day, 1962) and in the same way a component of individualized consideration (Bass, 1990). Supportive leadership builds and maintains effective interpersonal relationships, however the relationship of supportive leadership on itself with follower performance is weak and inconsistent (Kim & Yukl 1995; Yukl, Wall & Lepsinger, 1990). Therefore supporting leadership is more likely to be effective when mixed with other leadership behaviors. Secondly the coaching aspect of leadership is covered by development leadership, examples include providing stepping stones for an individual to help that individual complete a complex task and provide opportunities to develop skills and confidence (Yukl et al., 2002). Bradford & Cohen, (1984) stated that effective leaders take a more effective role in developing skills and confidence of followers. Further, recognizing contains giving commendation for followers who achieve certain achievements, which are direct or indirect affecting organizational performance. Recognition is often paired with tangible rewards, however this combination is not standard and differs per organization. Providing recognition to followers for their achievements is more often done by effective leaders (Kouzes & Posner, 1995; Peters & Austin, 1985). The involvement of followers in making important decisions is a key component of consulting (Yukl et al., 2002). Involving followers in the decision making process enhances acceptance of the people who have to deal with the implementation or be affected by the decision. The effectiveness of consulting vary per decision, as several variables as type of task, distribution of information and value of followers have influence in the decision making process (Vroom & Yetton, 1973; Yukl et al., 2002). Empowering consists of transferring power, autonomy and discretion to subordinates. Empowering is expected to arise commitment by the subordinate to implement decisions effectively (Yukl et al., 2002). When empowering is used in appropriate situations, it supports effectiveness (Bass, 1990). All of the five relation-oriented leadership behaviors are related to the followers' satisfaction with the leader. Moreover they increase follower performance and enhance leadership effectiveness (Yukl et al., 2002).

“Neutral relation-oriented statements are minimal verbal encouragers and represent listening behaviors” (Meinecke et al., 2017, p.8). Subsequently these statements encourage both functional and dysfunctional interactions. Examples of neutral relation-oriented behavior are: “uh-huh,” “yes” and words or sentences that are not contributing on the specific content of the conversation. In contrast to positive relation-oriented behavior, negative relation-oriented behavior does not contribute to a perceived working atmosphere. Negative-oriented behavior includes criticizing, self-promoting and even blackguarding. Examples of this behavior even include severe name-calling such as ‘they are all idiots’ (Meinecke et al., 2017). Meinecke et al., (2017) state that negative relation-oriented behavior inheres interrupting. Therefore interrupting could be seen as a decline in the interaction process of leaders and followers. In addition to Meinecke et al. (2017) who state that interruption is a part of negative-relation oriented behavior, the CMOB codebook describes interrupting behavior as a steering behavior. These two different frames for interrupting behavior may contradict.

2.2 Leader effectiveness

The full range leadership theory consists of the three big leadership styles; laissez-faire leadership, transactional leadership and transformational leadership (Bass and Avolio, 1997). Laissez-faire leadership can be defined as the absence of leadership (Harms & Credé, 2010). Since this research is contains mainly interactions, laissez-faire leadership it is not considered significantly important for this research.

The paradigm within leadership styles is the theory of transformational and transactional leadership proposed by Burns (Burns, 1978) and further developed Bass and Avolio (Bass & Avolio, 2000). Bass and Avolio (2000) suggest that transactional leadership is characterized by two factors, respectively contingent reward and management-by-exception. Contingent rewards can be seen as the active transformational leadership; clarify what rewards followers can expect in exchange for their efforts in achieving pre-set standards. Next to contingent reward, management-by-exception is recognizable as less active transformational leadership that is referred to as avoidance of corrective action (Willis, Carke & O'Connor, 2017). In other words: if it works, do not fix it, as long as standards are being met.

Whereas transactional leadership focuses on achieving certain goals and rewarding those achievements, transformational leaders stimulate and inspire followers to achieve significant outcomes (Robbins and Coulter, 2007). Bass & Avolio (2000) identified four components of transformational leadership: (1) charisma or idealized influence, (2) inspirational motivation, (3) intellectual stimulation and (4) personal and individual attention. These components together enhance the motivation, performance and morale of followers including (1) striving to be a role model for the follower, (2) inspire the follower for future goals and challenges, (3) stimulate and help followers to overcome any obstacle and lastly (4) act as a mentor which gives respect and appreciation to the followers ‘contribution. (Odumeru & Ifeanyi, 2013). Early studies in the field of leadership styles support the relationship between transactional leadership and effectiveness (Bass, 1985). Other studies support the relationship between transformational leadership and effectiveness (Avolio, Bass, & Jung, 1999). “Transformational leadership enhances the development of followers, challenging them to think in ways in which they are not accustomed to thinking, inspiring them to accomplish beyond what they felt was possible, and motivating them to do so by keeping in mind the values and high moral standards that guide their performance” (Bass et al., 2003, p215). Lastly studies proclaim that a combination of transformational

and transactional leadership supports leader effectiveness. "However, the best of leaders typically displayed both transformational and transactional leadership" (Avolio, Bass & Jung, 1999, p457)

2.3 Follower effectiveness

Gibson, Cooper, and Conger (2009) investigated team effectiveness based on perceptual distance between leaders and teams. In order to measure specific follower effectiveness the overall sense of effectiveness was captured rather than goal specific outcomes. They found that goal accomplishment and effectiveness were empirically distinct, however when combined, they form a clear overview of follower effectiveness. This research builds on this follower effectiveness, with a four-item scale consisting items, which combine goal accomplishment and overall effectiveness.

2.4 Other factors

Next to leaderships styles, leader effectiveness and follower effectiveness, this research investigates the relationships of interrupting behavior and several other theories.

Job satisfaction is a well-researched topic in the field of group and organization management e.g. (McClusky & Strayer, 1940; Peters, Bhagat, & O'Connor, 1981; Staple, 1950). Since this is a well-studied measure of contentedness of employees, it will be used in this paper to identify possible relationships between contentedness of employees and interrupting. As a framework (Thompson & Phua, 2012) will be used, which is constructed by enjoyment, liking, enthusiasm and satisfaction of the job.

Next to job satisfaction, work values will be included in this research. Work values are the subset of beliefs and ideas that are related to a job (Brown, Trevino & Harrison, 2005). Work values do not specifically belong to a certain occupation, however certain within certain occupations specific work values may be more common (Brown, et al., 2005). Examples of work values included in this study are: Obedient, Traditional, Respectful and Courage. These work values may have relationships with interrupting, since employees with specific values may exhibit specific behaviors.

As a final point the positive and negative affect schedule (PANAS) (Watson, Clark & Tellegen, 1988) will be taken into account. The PANAS scale is developed as the development and validation of brief measures of both positive and negatives states of affect. A state of affect describe the experiencing of a feeling or an emotion. Every emotion is situated in a relation to a valence- and an arousal dimension (Russel, 1979). The valence dimension refers to the pleasantness of an effective experience, while the arousal dimension refers to the perceived activation associated with the affective experience. These affects can be positive (PA) or negative (NA). Watson, et al. (1988) explain what the positive and negative affects contain; PA refers to the degree to which an individual is enthusiastic, interested, inspired and proud. When an individual experiences positive affect, a high level of energy and pleasure will be obtained. Conversely when an individual experiences a negative state of affect, it is likely that the individual will suffer from unpleasant feelings. Negative affective states include scared, upset, nervous and irritable.

3. METHODOLOGY

In this section the methods used in the study is discussed. The theoretical framework shows that there are a lot of behaviors during conversations. These behaviors include interrupting behavior. In order to identify the possible relationship between the behaviors and the relationship with effectiveness, a correlation matrix will be created.

3.1 Research design

Before any statistical test will be conducted, descriptive statistics for several different variables will be created and analyzed. These variables include data regarding gender, age, education levels and leader/follower position. In order to get more insight in the population, characteristics and potential differences between employees will therefore be gathered.

Secondly an overall analysis of all variables will be executed in which the correlations of all the variables will be collected into three tables. There are three tables, as the three research questions, in order to identify the possible positive and negative relationships of interrupting for employees, leaders and followers.

3.2 Sample

The data for this research is collected at a governmental organization located in the Netherlands. The data consists in total 1622 employees from which 946 are male, 510 female and 166 without information regarding gender. The employees are divided in 114 teams. The mean employment time of the employees is 9.5 years, of which 2.5 years within their current team. From the 1622 employees, 114 are leaders, 1490 are followers and 18 are not categorized. Within the leaders 41.7% have a degree in applied sciences (HBO in Dutch) as their highest education degree, 38.9% graduated at master degree and 15.9% finished secondary school. Within the followers 50.2% have a degree in secondary education as their highest degree, 29.7% have a degree in applied sciences and 16.7% have a master's degree.

3.3 Measurement

This section elaborates the measurement levels of the variables, as well as the creation of variables and the codebook.

To be able to make the distinction between interrupting behavior of effective and non-effective leaders, general leader effectiveness was used. All of the followers and three independent experts rated the leaders based on general leader effectiveness. Every expert rated different leaders based on group effectiveness, meeting effectiveness and general effectiveness of the leader. The expert rating of general effectiveness of the manager, rather than the follower rating was used in this research, since independent experts are considered as more reliable than followers rating their own leaders. Expert 1 rates 108 out of the 114 leaders, while other experts rate respectively 68 and 27 leaders. The rating of only expert 1 is used, since he rated the most leaders and therefore the most convenient. Since only one expert rating is used, every leader which is taken into account in this research is rated by the same expert and therefore the ratings are consistent. Based on the general effectiveness of the manager, the eleven most effective leaders and the eleven least effective leaders are selected to represent effective- and non-effective leaders, since they are respectfully the ten percent most and least effective leaders. Within the followers, individual employee effectiveness is measured by the ratings, which leaders gave to each individual follower in his or her team. (Gibson et al., 2009) All of the followers receive a score from one to ten on the following statements; (1) This employee is effective, (2) This employee makes few mistakes, (3) This employee delivers high quality work and (4) This employee continuously performs at high levels. In order to categorize the followers, the average score on the four criteria will be calculated and put into a new variable (Appendix A). The leaders rated 1100 followers based on effectiveness. The worst ten percent of the rated followers (N=111) and the best 10 percent of the rated followers (N=111) were taken into account in order to analyze the differences between effective and non-effective followers.

The meetings, which are used for this research are video-recorded and later coded with the so called CMOB codebook. This codebook consists of sub categories, in which the specific behavior is placed. Categories include self-orienting, steering, supporting and other behaviors. Interrupting behavior belongs to steering the conversation and is noticed when one team member interrupts another team member. This behavior concerns every interruption of a team member to another team member during the conversation. In other words; when a team member interrupts another team member and starts talking about something else, then the behavior is noticed as interruption. Additionally, when one team member interrupts while another team member keeps talking will be noticed as an interruption. This will both be noticed if a team member is talking about the same subject and if the subject is different. For example saying “but” and then nothing more, while a team member talks, will be noticed as an interruption. Also when a team member keeps talking to another team member who is interrupting and this is not understood, it is noticed as interruption. Furthermore, when a team member interrupts another team member when the team member is formulating what he or she actually wants to say results in a notice of interrupting. All of interruptions and other verbal behaviors are measured as a percentage frequency of the total verbal behavior, which is calculated by the total frequency of the specific behavior, divided by the frequency of all behavior multiplied by 100 percent.

To capture the overall concept of job satisfaction four items on a specific scale are used (Thompson & Phua, 2012). This implies that both leaders and followers with high job satisfaction believe they enjoy their work better than others, find real enjoyment, are enthusiastic about their job and are satisfied within their occupation (Appendix B). Every employee rates its own job satisfaction on a seven point Likert scale, which is a seven point scale ranging from strongly disagree to strongly agree.

In order to test elements of leadership styles, several questions of the MLQ are combined into dimensions of the specific leadership style, where transformational leadership consist of four dimensions and transactional consist of two dimensions. Furthermore these dimensions are combined to get a clear outcome for transformational (appendix C) and transactional leadership styles (Appendix D). For this correlation, the score of every team regarding transactional and transformational leadership is calculated. The teams with the ten percent highest score for each leadership style is then selected. Resulting in eleven leaders who have a transformational leadership style and eleven leaders with a transactional leadership style. The leadership styles are measured on a 7-point Likert scale.

Ten work values experienced by both leaders and followers are tested within this research (Appendix E). All of the employees have to rate their agreeableness regarding ten work values in a survey. The work values are measured on a 7-point Likert Scale ranging from “Opposite to my personal values” to “Very important for my personal values”. Significant outcomes will be included in the correlation matrix.

Eight items of the positive and negative affect schedule (PANAS) are included in this research. The affects are measured by a survey, which is measured as a self-rating system for all employees. This research takes both leaders and followers into account. The items consist of four positive affects; enthusiastic, interested, inspired and four negative affects; scared, upset, nervous and irritable. The items are measured on a seven point Likert scale, ranging from strongly disagree to strongly agree.

Before the correlations are calculated, scatterplots of the variables will be created and analyzed. If the scatterplots have a clear linear correlation, Pearson correlation will be used to measure the strength of the correlation. Where the outcome is close to one or minus one, a very strong correlation exists, where the outcome is close to zero, no correlation exist. In case the scatterplots do not show linearity, Spearman’s Rho will be used. The descriptive statistics of each variable has to be conducted and the assumption for linearity has to be checked. For Pearson’s rho, variables do not have to be standardized and units of analysis may vary over different variables. The skewness of all of the variables is checked and is between -1 and 1, combined with the histograms of the variables, this research assumes that the variables are normally distributed. Outliers and missing values are not taken into account in this analysis.

4. RESULTS

In this chapter, the results obtained from the correlation research will be elaborated. Firstly the difference between leaders and followers and the demographics will be stated. Then the verbal interactions, next the effectiveness and leadership styles following the work values and lastly the affective states will be reported.

The relationship between the leader follower variable and interruption is significantly negative ($r=-0.40$), which means that followers interrupt less than leaders. Furthermore very strong negative correlations ($r=-0.8$) are found between the leader follower variable and various behaviors which are all set under ‘steering’ behaviors, including giving own opinion, providing facts and shape the conversation. Which means that leaders tend to display steering behaviors much more than followers display these behaviors. Interrupting is also considered as a steering behavior, therefore these outcomes are consistently negative.

There is also a small negative relationship between gender and interrupting behavior ($r=-0.08$), therefore male employees interrupt slightly more than female employees, the strength of the relationship between gender and interrupting, as well as age and interrupting ($r=-0.06$) is very limited. Education levels on the other hand have a slightly stronger relationship with interrupting ($r=0.14$), implying that a higher level of education for employees lead to an increase in interrupting (Appendix F). But when the individual education levels of leaders and followers are checked, it is clear that there is no significant relationship between the level of education of leaders and interrupting behavior (table 1), while on the other hand there is a significant relationship between the levels of education of followers and interrupting behavior ($r=0.08$)(table 2), suggesting a higher level of education for followers leads to more interrupting.

Within verbal interactions, there are large differences between verbal behaviors of all employees, those from leaders and those from followers. The three verbal behaviors that all have similar correlations with interrupting behavior are; giving own opinion, providing facts/factual informing and providing structure for the conversation. All of these behaviors score between 0.40 and 0.44 on Pearson’s correlation coefficient. Furthermore all of these behaviors are steering sub-category of the CMOB codebook. The relationship between interrupting and leaders who spread their own opinion ($r=-0.19$) (table 1) contradict the relationship between followers who spread their opinion ($r=0.47$) and interrupting. Also a significant positive relationship was found between leaders who verbally resist against their followers and interrupting ($r=0.21$). Lastly a significant correlation was found between interrupting behavior and followers giving negative feedback ($r=0.35$).

Table 1

Means, Standard deviations and Inter correlations of Interrupting for leaders

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
1. Interrupting	1.74	2.01																					
2. Gender	1.26	.44	-.04																				
3. Age	51.16	7.44	-.04	-.29**																			
4. Education Level	3.58	1.10	.016	.00	-.00																		
5. Giving own opinion	19.94	7.82	-.19*	-.15	.02	.01																	
6. Effective	8.36	.50	-.21	-.46	.18	-.022	-.06																
7. Non-effective	5.18	.87	.17	.36	-.46	-.19	-.25	-															
8. Job-satisfaction	6.13	.63	.19*	.03	.05	.08	.02	.25	-.16														
9. Traditional work value	1.53	1.28	.19*	.09	.19*	-.01	.11	-.63*	.23	-.12													
10. Transformational leadership	5.29	.37	-.06*	.18*	.02	.12	.04	.34	.21	.19**	.04												
11. Transactional leadership	5.21	.42	-.00	.25*	.04	.09	.05	.29	.23	.27**	.06	.78**											
12. Enthusiastic	5.17	1.00	.24*	-.10	-.06	.11	.15	.54	.03	.45**	-.16	.29**	.19										
13. Interested	5.44	.89	.16	-.13	-.02	.03	.18	.53	-.31	.32*	-.01	.30	.08	.64**									
14. Inspired	4.64	1.2	.24*	-.19	.02	.09	.03	.69*	-.34	.31*	-.05	.18*	.19	.65**	.64**								
15. Proud	4.58	1.36	.2*	.02	-.1	.05	-.06	.36	.23	.38*	.05	.22*	.26*	.48**	.53**	.53**							
16. Scared	1.78	.75	.01	.11	-.08	-.09	.15	-.38	-.27	.08	-.08	.12	.02	-.02	.02	.08	.03						
17. Upset	2.15	.84	.14	.19*	-.17	.04	-.02	-.06	.53	-.13	-.08	-.04	-.08	.09	.05	-.00	-.01	.30**					
18. Nervous	2.02	.75	.04	.12	-.08	.08	.13	-.24	-.01	-.04	-.14	-.06	.05	.16	.16	.2*	.05	.59**	.31**				
19. Irritable	2.60	.822	.14	.10	-.15	-.05	.11	-.02	.11	-.09	.12	.09	.11	-.14	.01	-.14	-.14	.35**	.3**	.33**			

*P<.05 (two-tailed)

**P<.01 (two-tailed)

Table 2

Means, Standard deviations and Inter correlations of Interrupting for followers

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Interrupting	.29	.68																			
2. Gender	1.36	.48	-.07*																		
3. Age	49.11	10.71	.06*	-.24*																	
4. Education Level	2.87	1.12	.08*	-.08*	-.18*																
5. Giving own opinion	2.23	2.86	.47*	-.07*	.06*	.16**															
6. Giving negative feedback	.17	.55	.35*	-.07*	.03	-.015	.25**														
7. Effective	9.18	.30	-.13	.01	.04	.19	-.014	.02													
8. Non-effective	4.72	.84	.08	-.00	-.09	.01	.07	.18													
9. Job-satisfaction	5.50	1.03	.02	.00	-.05	.15**	.06*	-.01	.12												
10. Traditional work value	2.84	1.57	-.06*	-.03	.06*	-.24**	-.09**	-.00	-.011	-.19	-.04										
11. Accommodating work value	3.89	1.42	-.07*	.07**	-.09**	-.20**	-.08**	.01	-.01	.01	.12*	.46*									
12. Enthusiastic	4.39	1.29	.09**	.03	-.08**	.13**	.08**	-.06*	-.04	.06	.55**	.00	.14**								
13. Interested	4.86	1.13	.10**	.05	-.06*	.16*	.10**	-.06*	.02	.12	.45**	-.02	.15**	.74**							
14. Inspired	4.22	1.28	.07*	-.02	.07*	.04	.08*	-.06*	.04	.10	.47**	.11**	.17**	.73*	.69**						
15. Proud	3.91	1.4	.05	.02	-.06*	.03	.04	-.04	-.03	.12	.51**	.1**	.21**	.65**	.61**	.65**					
16. Scared	1.82	.94	-.01	.04	-.02	-.1**	-.02	-.01	-.03	-.16	-.13**	.22**	.13**	-.08**	-.08**	-.01	.05				
17. Upset	2.21	.97	.11**	.06*	.02	-.05	.10**	.07*	.01	-.05	-.21**	.10**	.05	-.05	-.04	-.06*	-.12	.39**			
18. Nervous	2.00	.96	.08**	.00	-.03	-.03	.01	-.01	-.08	-.05	-.15**	.13**	.09**	-.03	-.01	.02	.05	.55**	.47**		
19. Irritable	2.63	1.03	.13**	.07*	-.01	.01	.12**	.06*	-.07	-.09	-.24**	.01	.01	-.12**	-.05	-.15**	-.12**	.29**	.61**	.42**	

*P<.05 (two-tailed)

**P<.01 (two-tailed)

Between the variables of interrupting and effectiveness of both leaders and followers, zero significant relationships were found, concluding that there is no direct relationship between employee effectiveness and interrupting. Within transformational leadership styles and interrupting behavior, there is a significant, but small negative relationship ($r=-0.06$). On the other hand, there is no significant relationship between transactional leadership styles and interrupting.

Employees who describe themselves as traditional tend to interrupt less ($r=-0.10$) (Appendix F), while traditional leaders tend to interrupt more ($r=0.19$) (table 1) and followers who describe themselves as traditional tend to interrupt slightly less ($r=-0.06$). Followers who see themselves as accommodating have a slightly negative relationship with interrupting. The concept of Job satisfaction for employees has a positive relationship with interrupting ($r=0.10$), meaning that employees who are satisfied about their job tend to interrupt more. Specifically leaders who are satisfied tend to interrupt more ($r=0.19$), while there is no significant relationship between job satisfaction of followers and interrupting. Overall leaders are more satisfied with their jobs than followers. On a 7-point Likert scale, the leaders score on average a 6.13, with a standard deviation of 0.63, while followers score a 5.5, with a standard deviation of 1.03. On average employees score a 5.55 with a standard deviation of 1.02.

Lastly the results from the positive and negative affect schedule (PANAS) will be elaborated. The first thing that is noticed is the difference between the positive and negative states of affect. Enthusiastic, interested, inspired and proud all have means ranging from four to five, whereas scared, upset, nervous and irritable have means ranging from two to three. This clearly indicates that overall the sample experienced more positive than negative effects during the period of the data collection. Furthermore there is a large contradiction in the inter correlations of positive and negative affect; most positive affect correlates positive with the other positive affect and correlate negative with the negative affect and vice versa. Moreover all of the affects have a positive relationship with interrupting, except for scared. This implies that positive as well as negative effects may lead to interrupting behavior, but positive effects have a stronger relationship with interrupting behavior than the negative effects. Employees who describe their last week as scared do not have any significant relationship with interrupting.

5. DISCUSSION

In this study, the results from the study are presented and discussed. Firstly, the results of the demographics are discussed, after which the verbal behaviors are discussed. Next, the effectiveness, leadership styles and work values are discussed. Lastly the states of affect are discussed.

Firstly, there is a relationship between interrupting and the position of the employee as a leader or follower. Leaders interrupt more than followers, which is in line with their role as sensitive and responsive caregivers who provide followers with a sense of security (Davidovitz, Mikulincer, Shaver, Izsak & Popper, 2007) and leaders have a role in structuring the meetings. Additionally, the negative relationship between the leader follower variable and aspects of steering the conversation (giving opinion and providing facts) could have influence on leaders interrupting behavior, since interrupting is also a component of steering the conversation. Gender has a slightly negative relationship with interrupting, meaning that male employees tend to interrupt slightly more than female employees, especially male followers, since there is no significant relationship between the

gender of leaders and interrupting behavior. The negative relationship of gender and interrupting is similar to the relationship gender has with other steering behaviors such as giving opinion; both of the relationships have a coefficient of -0.08. Which on itself is not a very strong correlation, but the relationship is however consistently weak negative within all of the steering behaviors, which connote that male employees tend to display slightly more steering behaviors, which means more interrupting than female employees. Gender is not the only basic demographic that has significant relationships with interrupting behavior, age also has a positive relationship with interrupting behavior ($r=0.06$) and shows the same positive relationships with the other variables included in the steering category. Moreover, age has significant negative relationship ($r=-0.06$) with the leader/follower variable, meaning that there is a small relationship between age and leaders. This relationship on itself may seem logic, since people may start as a follower and then grow to a leaders position. But the contradiction with the age variable, and therefore with interrupting behavior is it's negative relationship with education of followers ($r=-0.18$). Implying that there is a relationship between a lower education, higher age and a follower position. The relationship between level of education and interrupting is positive, but there is a negative correlation between leader follower and education, suggesting that leaders on average have a higher education than followers. Since leaders interrupt more than followers, this relationship might be caused more by the position as a leader or follower rather than education level. On the other hand, education level has similar positive relationships with steering behaviors. Within these relationships, the relationship between the steering behavior and level of education of employees is stronger than the relationship between steering behavior and the level of education of followers. There are no significant relationships found between the level of education of leaders and interrupting- or steering behaviors.

Next to the demographics, there are significant outcomes for the verbal behaviors of employees, leaders and followers. All of the verbal behaviors are measured on frequency percentage level and have high correlations with each other. The inter-correlations of spreading own opinion, giving factual information and providing structure to the conversation all have correlations of 0.7 or higher. This may due to their steering sub-category within the CMOB codebook, which also consist of interrupting behavior. These similarities are also found in the relationships between age, interruption and the steering behaviors. All of the steering variables have large negative correlations with the leader follower variable, meaning that leaders tend to have much more steering behavior than followers do. One variable; giving own opinion has a significant relationship with interrupting at all three levels; employee, leader and follower. While there is a positive relationship on both employee- and follower level, there is a negative relationship with interrupting on leader level. It is contradicting that there is a positive relationship between followers who steer the conversation, while there is a negative relationship between leaders who steer the conversation and interrupting. An explanation for this phenomenon might be in the definition of 'giving own opinion'. According to the CMOB codebook, giving own opinion consist of "the behavior of a team member to call a certain goal, the team members speaks about the desired state, anticipates and set the strategy for reaching the desired state". Leaders may set out the course in the beginning of meetings, followers may anticipate on this course and therefore have a positive relationship with interrupting. In order to check this premise, a qualitative study combined with an regression analysis can be executed. Leaders who disagree with their followers show more interrupting, this is due to the fact that this behavior includes explicitly disagreements with the behavior of

other team members. This disagreements may directly be called during a team meeting, which results in interrupting.

Leader effectiveness does not have any significant relationship with interrupting, this may due to the fact that effectivity is not a cause for interrupting nor steering behavior and vice versa. Furthermore, there is no significant relationship between follower effectiveness and interrupting behavior. At both levels, there is no relationship between effectiveness and steering behavior, which is consistent. This study takes individual leaders and followers into account, future research could include team effectiveness, where there might be a relationship between interrupting and effectiveness on team level. Effective leaders however have a very strong negative relationship ($r=-0.63$) with traditional work values, suggesting that traditional leaders are less effective than progressive leaders. Opposite to the negative relationship between traditional work values and leader effectiveness, there is a very strong relationship ($r=0.69$) between leaders who described their affect as inspiring and leader effectiveness. This may due to the relationship of positive state of affect and leader effectiveness. There are lots of examples of studies with significant outcomes between positive affect states or emotions and performance e.g. (Day & Qing, 2009). Where effectiveness does not have any relationship with interrupting, transformational leadership does have a small negative relationship with interrupting behavior ($r=-0.06$). Transformational leaders tend to stimulate and inspire followers to achieve significant outcomes (Robbins and Coulter, 2007), therefore this may cause a negative relationship with interrupting. Whereas a transformational leadership style does have a small negative relationship with interrupting, transactional leadership does not have any relationship with interrupting at all. Transformational leadership does have positive relationships with various positive affects as enthusiastic, inspired and proud, whereas transactional does only have a positive relationship with proud.

Where there are no relationships between interrupting and effectiveness, there are significant outcomes on the relationship between work values and interrupting. Within the work values there are some contradictions between all employees, leaders and followers. For the work value traditional, employees and followers have negative relationships with interrupting, while traditional leaders have a positive relationship with interrupting. In a traditional setting, leaders tell the followers what to do and followers execute without a lot of interference (Schnake, Dumler & Cochran, 1993). This might cause less interruptive behavior for followers. Within this sample there are more followers than leaders, therefore the average work value traditional (Table 3) consist of more followers than leaders and therefore followers and employees have both a negative relationship with interrupting. The opposite counts for the leaders, leaders who are more traditional, tend to be more dominant. Dominant, masculine leaders tend to be more in favor of conflict conditions rather than cooperation conditions (Laustsen & Petersen, 2017). This might contribute to the positive relationship with interrupting. Employees with courage as work value tend to interrupt more, since they have a positive relationship with interrupting. There are various definitions of courage in various settings. One definition regarding courage of speaking includes: "What is in one's mind or thoughts, what one is thinking of or intending—such as to speak one's mind, to tell all one's heart" (Jablin, 2006, p.104). Since people might courage to speak out, it might be needed even more courage to interrupt another. This can explain the positive relationship between interrupting and courage (table3). Where courage employees tend to interrupt more, accommodating followers tend to interrupt less. Since accommodating is the opposite of disobliging, accommodating

followers might interrupt less than followers who have strong deviant opinion.

Leaders with a high job-satisfaction interrupt more than leaders with low job-satisfaction. There are examples of studies where there is a direct link between leaders who experience and strive for power and a high job-satisfaction (Jenkins, 1994). Therefore leaders who have a high job-satisfaction might strive for power and therefore interrupt more than leaders who do not strive explicitly for power. Employees overall have a positive relationship between job-satisfaction and interrupting ($r=0.10$), but not as strong as the leaders ($r=0.19$). Leaders also tend to have a higher job-satisfaction rate than followers and transactional leaders tend to have a higher job-satisfaction rate than transformational leaders. The leadership styles have strong relationships with job-satisfaction, while there are no significant relationships between job satisfaction and effectiveness. Since the organization is a Dutch governmental institution with employees having an average age of 49, which is much higher than the average in the Netherlands of 41 and employees work on average 24 years within the organization, the turnover rate of employees is very low. Therefore employees might stick to a traditional working atmosphere that they are used to, which can be a transactional leadership style, since this was more common than a transformational leadership style in the past.

All positive affect have stronger relationships with interrupting than negative affect, however negative ones do have some positive relationship, but the relationship is not that strong as the positive affect (table 3). Scared is the only affect which does not have a relationship with interrupting, employees who feel scared might not interrupt. Scared can be seen as the opposite of courageous, which has a significant positive relationship with interrupting. Next to interrupting, all positive affect have a strong positive relationship with job-satisfaction, while negative affect has negative relationships. This is obvious, considering the relationship between positive emotions at the working atmosphere and the wellbeing and perceived happiness of employees. Meinecke et al. (2017) state that negative relation-oriented behavior does not contribute to a perceived working atmosphere. Since interrupting is a part of negative relation-oriented behavior, it should according to the theory not correlate with positive states of affect. The results of this study contradict that allegation of Meinecke et al. (2017). Since job-satisfaction and positive states of affect have all positive inter correlations, the allegations of Meinecke et al. (2017) might be misinterpreted, incomplete or partially false. Future research should be performed to test the relationship between positive affect states and interrupting. Positive affects as enthusiastic, interested inspired and proud have inter correlations with each other and on the other hand the negative affects also have strong inter correlations with each other. Therefore the inter correlations of positive and negative states of affect are consistent.

6. CONCLUSION

In the following section the findings from the present study are summarized and concluded. First, the limitations of this research are described, next the possibilities for future research are elaborated and lastly the conclusion of this study is stated.

6.1 Limitations

This research has some limitations. First of all the relationships are tested by correlations, which are an indicator for associations between variables, in order to test the predictability of a given variable a regression analysis is required.

Next, the measurement of transformational leadership, transactional leadership used is the MLQ and therefore is based on judgements of followers, which are not independent of leaders. Therefore followers can be biased, however since the scope is large and most of the outcomes consistent it is unlikely that this has significant effect on this study.

6.2 Future research

First of all, future research can elaborate on the findings of the present study by performing multiple regression analyses on the significant outcomes of this study. The relationship between states of affect and interruption are significant and consistent for the positive and negative affective states. Therefore future research can focus on these relationships, in order to test the effect of positive work environments on interrupting and vice versa. Next to the affective states the relationship of traditional work value and leader effectiveness can be examined in future research due to the large negative correlation. The outcomes of these effects have theoretical and practical importance.

Next to the relationships which are tested in this study on individual basis, future research can focus on testing these relationship on team level. Where effectiveness of leaders and followers might not have significant relationships with interrupting, team effectiveness might have significant outcomes.

The CMOB codebook only consists of one category for all different ways of interrupting. There are differences in interrupting behavior, such as: small interruptions which only consist of one word, team members who keep talking in order to disturb others, interrupting in order to change the subject and interrupt in order to help people formulate their sentences. All of these interruptions are categorized in the same category. If interruption is divided into more categories the differences between for example positive and negative, content based or disturbing based can be segregated. If these categories are then tested the different categories will have more specified outcomes.

6.3 Conclusion

This study adds insights on the relations between interrupting behavior, verbal behaviors, effectiveness, work values and affect states of both leaders and followers. The relations of different variables with interrupting were tested for all employees, leaders and followers. In general leaders interrupt more than followers, and male interrupt more than female. Furthermore employees who steer the conversation interrupt more. Leaders with high job-satisfaction, traditional work values and positive affect interrupt more, while leaders who express their own opinion and have a transformational leadership style interrupt less. Followers which express their own opinion, give negative feedback have a higher education level interrupt more, while followers with traditional and accommodating work values interrupt less. There are no relationships between effectiveness and interrupting within both the leaders and followers.

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8. REFERENCES

- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72(4), 441–462. doi:10.1348/096317999166789
- Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics*, 18(3), 19–31. doi:10.1016/0090-2616(90)90061-s
- Bass, B. M. (1990). *Handbook of leadership: A survey of theory and research*. New York: Free Press.
- Bass, B. & Avolio, B. (1997) *Manual for the Multifactor Leadership Questionnaire* (California: Mind Gardens).
- Bass, B., & Avolio, B. (2000). *Multifactor Leadership Questionnaire: Sampler Set, 2nd Ed.* Redwood City, CA: Mind Garden.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207-218. doi:10.1037/0021-9010.88.2.207
- Bradford, D. L., & Cohen, A. R. (1984). *Managing for excellence: The guide to developing high performance organizations*. New York: John Wiley.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2), 117–134. doi:10.1016/j.obhdp.2005.03.002
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Cafaro, A. Glas, N. & Pelachaud, C.. The Effects of Interrupting Behavior on Interpersonal Attitude and Engagement in Dyadic Interactions. In *AAMAS*, pages 911–920. ACM, 2016.
- Davidovitz, R., Mikulincer, M., Shaver, P. R., Izsak, R., & Popper, M. (2007). Leaders as attachment figures: Leaders' attachment orientations predict leadership-related mental representations and followers' performance and mental health. *Journal of Personality and Social Psychology*, 93(4), 632–650. doi:10.1037/0022-3514.93.4.632
- Day, C., & Qing, G. (2009). Teacher emotions: Well-being and effectiveness. In Schutz, P. A., & Zembylas, M. (Eds.), *Advances in teacher emotion research*. New York: Springer.
- Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, 37(1), 1–6. doi:10.1037/h0056314
- Gibson, C. B., Cooper, C. D., & Conger, J. A. (2009). Do you see what we see? The complex effects of perceptual distance between leaders and teams. *Journal of Applied Psychology*, 94(1), 62–76. doi:10.1037/a0013073
- Harms, P. D., & Credé, M. (2010). Emotional Intelligence and Transformational and Transactional Leadership: A Meta-Analysis. *Journal of Leadership & Organizational Studies*, 17(1), 5–17. doi:10.1177/1548051809350894
- Jablin, F. M. (2006). Courage and Courageous Communication Among Leaders and Followers in Groups, Organizations, and Communities. *Management Communication Quarterly*, 20(1), 94–110. doi:10.1177/0893318906288483
- Jenkins, S. R. (1994). Need for power and women's careers over 14 years: Structural power, job satisfaction, and motive change. *Journal of Personality and Social Psychology*, 66(1), 155–165. doi:10.1037/0022-3514.66.1.155
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The Forgotten Ones? The Validity of Consideration and Initiating Structure in Leadership Research. *Journal of Applied Psychology*, 89(1), 36–51. doi:10.1037/0021-9010.89.1.36
- Kouzes, J. M., & Posner, B. Z. (1995). *The leadership challenge: How to get extraordinary things done in organizations*. San Francisco: Jossey-Bass.
- Kim, H., & Yukl, G. (1995). Relationships of managerial effectiveness and advancement to self-reported and subordinate-reported leadership behaviors from the multiple-linkage mode. *The Leadership Quarterly*, 6(3), 361–377. doi:10.1016/1048-9843(95)90014-4
- Laustsen, L., & Petersen, M. B. (2017). Perceived Conflict and Leader Dominance: Individual and Contextual Factors Behind Preferences for Dominant Leaders. *Political Psychology*, 38(6), 1083–1101. doi:10.1111/pops.12403
- Lord, R. G., Brown, D. J., & Freiberg, S. J. (1999). Understanding the Dynamics of Leadership: The Role of Follower Self-Concepts in the Leader/Follower Relationship. *Organizational Behavior and Human Decision Processes*, 78(3), 167–203. doi:10.1006/obhd.1999.2832
- McDaniel, B. T., & Coyne, S. M. (2016). “Technoference”: The interference of technology in couple relationships and implications for women's personal and relational well-being. *Psychology of Popular Media Culture*, 5(1), 85–98. doi:10.1037/ppm0000065
- McClusky, H. Y., & Strayer, F. J. (1940). Reactions of teachers to the teaching situation: A study of job satisfaction. *School Review*, 48, 612-623
- Meinecke, A. L., Lehmann-Willenbrock, N. K., & Kauffeld, S. (2017). What happens during annual appraisal interviews? How leader-follower interactions unfold and impact interview outcomes. *Journal of Applied Psychology*, 102(7), 1054-1074. <https://doi.org/10.1037/apl0000219>
- Michel, J. W., & Tews, M. J. (2015). Does Leader-Member Exchange Accentuate the Relationship Between Leader Behaviors and Organizational Citizenship Behaviors? *Journal of Leadership & Organizational Studies*, 23(1), 13–26. <https://doi.org/10.1177/1548051815606429>
- Odumeru, J.A. and Ifeanyi, G.O. (2013). “Transformational vs transactional leadership theories: evidence in literature” ,*International Review of Management and Business Research*, Vol.1 No.2, pp.355-361.
- Peters, T. J., & Austin, N. (1985). A passion for excellence: The leadership difference. *New York: Random House*.

- Peters, L. H., Bhagat, R. S., & O'Connor, E. J. (1981). An examination of the independent and joint contributions of organizational commitment and job satisfaction on employee intentions to quit. *Group & Organization Management*, 6, 73-82.
- Robbins, S.P. and Coulter, M. (2007) *Management*. 9th Edition, Prentice-Hall, London.
- Russel, J.A. (1979). Affective space is bipolar. *Journal of Personality and Social Psychology*, 37, 345-356.
- Schnake, M., Dumler, M. P., & Cochran, D. S. (1993). The Relationship between "Traditional" Leadership, "Super" Leadership, and Organizational Citizenship Behavior. *Group & Organization Management*, 18(3), 352-365. doi:10.1177/1059601193183006
- Schriesheim, C. A., & Bird, B. J. (1979). Contributions of the Ohio State Studies to the Field of Leadership. *Journal of Management*, 5(2), 135-145. doi:10.1177/014920637900500204
- Staple, J. (1950). What is job satisfaction? *Public Opinion Quarterly*, 14, 551-554.
- Stogdill, R. M., Goode, O. S., & Day, D. R. (1962). New Leader Behavior Description Subscales. *The Journal of Psychology*, 54(2), 259-269. doi:10.1080/00223980.1962.9713117
- Thompson, E. R., & Phua, F. T. T. (2012). A Brief Index of Affective Job Satisfaction. *Group & Organization Management*, 37(3), 275-307. doi:10.1177/1059601111434201
- Volmer, J., Niessen, C., Spurk, D., Linz, A., & Abele, A. E. (2011). Reciprocal Relationships between Leader-Member Exchange (LMX) and Job Satisfaction: A Cross-Lagged Analysis. *Applied Psychology*, 60(4), 522-545. doi:10.1111/j.1464-0597.2011.00446.x
- Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Pittsburgh: University of Pittsburgh Press.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Willis, S., Clarke, S., & O'Connor, E. (2017). Contextualizing leadership: Transformational leadership and Management-By-Exception-Active in safety-critical contexts. *Journal of Occupational and Organizational Psychology*, 90(3), 281-305. doi:10.1111/joop.12172
- Yukl, G. (2010). *Leadership in organizations* (7th ed.) Englewood Cliffs, NJ: Prentice Hall.
- Yukl, G., Gordon, A., & Taber, T. (2002). A Hierarchical Taxonomy of Leadership Behavior: Integrating a Half Century of Behavior Research. *Journal of Leadership & Organizational Studies*, 9(1), 15-32. doi:10.1177/107179190200900102
- Yukl, G. P., Wall, S., & Lepsinger, R. 1990. Preliminary report on the validation of the MPS. In K. E. Clark & M. B. Clark (Eds.), *Measures of leadership*: 223-238. West Orange, NJ: Leadership Library of America.

9. APPENDIX

Appendix A: Measuring Follower effectiveness

Variable name in SPSS	Reference	Label in SPSS
MedEff1	Gibson, Cooper, Conger (2009)	This employee is effective/Deze medewerker is effectief
MedEff2	Gibson, Cooper, Conger (2009)	This employee makes few mistakes/Deze medewerker maakt weinig fouten
MedEff3	Gibson, Cooper, Conger (2009)	This employee delivers high quality work/Deze medewerker levert werk van hoge kwaliteit
MedEff4	Gibson, Cooper, Conger (2009)	This employee continuously performs at high levels/Deze medewerker presteert continu op hoog niveau

Appendix B: Measuring job satisfaction

Variable name in SPSS	Reference	Label in SPSS
JobSatis1	Thompson & Phua (2012)	I find real enjoyment in my work
JobSatis2	Thompson & Phua (2012)	I like my job better than the average person
JobSatis3	Thompson & Phua (2012)	Most days I am enthusiastic about my work
JobSatis4	Thompson & Phua (2012)	I feel fairly well satisfied with my present job

Appendix C: Measurement of transformational leadership

Variable name in SPSS	Reference	Label in SPSS	Dimension
IA1	Bass & Avolio (1995) MLQ	MLQ The person i'm rating instils pride in me for being associated with him/her	Idealized influence (attributed)
IA2	Bass & Avolio (1995) MLQ	MLQ Goes beyond the self-interest for the good of the group	Idealized influence (attributed)
IA3	Bass & Avolio (1995) MLQ	MLQ Acts in ways that builds my respect	Idealized influence (attributed)
IA4	Bass & Avolio (1995) MLQ	MLQ Displays a sense of power and confidence	Idealized influence (attributed)
IB1	Bass & Avolio (1995) MLQ	MLQ Talks about their most important values and beliefs	Idealized influence (behavioral)
IB2	Bass & Avolio (1995) MLQ	MLQ Specifies the importance of having a strong sense of purpose	Idealized influence (behavioral)
IB3	Bass & Avolio (1995) MLQ	MLQ Considers the moral and ethical consequences of decisions	Idealized influence (behavioral)
IB4	Bass & Avolio (1995) MLQ	MLQ Emphasizes the importance of having a collective sense of mission	Idealized influence (behavioral)
IM1	Bass & Avolio (1995) MLQ	MLQ Talks optimistically about the future	Inspirational Motivation
IM2	Bass & Avolio (1995) MLQ	MLQ Talks enthusiastic about what's need to be accomplished	Inspirational Motivation
IM3	Bass & Avolio (1995) MLQ	MLQ Articulates a compelling vision of the future	Inspirational Motivation
IM4	Bass & Avolio (1995) MLQ	MLQ Expresses confidence that goals will be achieved	Inspirational Motivation

IS1	Bass & Avolio (1995) MLQ	MLQ Re-examines critical assumption to question whether they are appropriate	Intellectual stimulation
IS2	Bass & Avolio (1995) MLQ	MLQ Seeks differing perspectives when solving problems	Intellectual stimulation
IS3	Bass & Avolio (1995) MLQ	MLQ Gets me to look at my problems from many different angles	Intellectual stimulation
IS4	Bass & Avolio (1995) MLQ	MLQ Suggests new ways of looking at how to complete assignments	Intellectual stimulation
Indcon1	Bass & Avolio (1995) MLQ	MLQ Spends time teaching and coaching	Individualized consideration
Indcon2	Bass & Avolio (1995) MLQ	MLQ Threats me as an individual rather than just as a member of a group	Individualized consideration
Indcon3	Bass & Avolio (1995) MLQ	MLQ Considers me as having different needs, abilities, and aspirations from others	Individualized consideration
Indcon4	Bass & Avolio (1995) MLQ	MLQ Helps me to develop my strength's	Individualized consideration

Appendix D: Measurement of transactional leadership

Variable name in SPSS	Reference	Label in SPSS	Dimension
Indcon1	Bass & Avolio (1995) MLQ	MLQ Spends time teaching and coaching	Contingent reward
Indcon2	Bass & Avolio (1995) MLQ	MLQ Threats me as an individual rather than just as a member of a group	Contingent reward
Indcon3	Bass & Avolio (1995) MLQ	MLQ Considers me as having different needs, abilities, and aspirations from others	Contingent reward
Indcon4	Bass & Avolio (1995) MLQ	MLQ Helps me to develop my strength's	Contingent reward
CR1	Bass & Avolio (1995) MLQ	MLQ Provides me with assistance in exchange for my efforts	Management-by-exception
CR2	Bass & Avolio (1995) MLQ	MLQ Discusses in specific terms who is responsible for achieving performance targets	Management-by-exception
CR3	Bass & Avolio (1995) MLQ	MLQ Makes clear what one can expect to receive when performance goals are achieved	Management-by-exception
CR4	Bass & Avolio (1995) MLQ	MLQ Expresses confidence when I meet expectations	Management-by-exception

Appendix E: Work values

Variable name in SPSS	Reference	Label in SPSS
Werkwaarden1cons	Brown, Trevino & Harrison (2005)	Obedient/Gehoorzaam
Werkwaarden2cons	Brown, Trevino & Harrison (2005)	Agreeable/Meegaand
Werkwaarden3cons	Brown, Trevino & Harrison (2005)	Traditional/Traditioneel
Werkwaarden4cons	Brown, Trevino & Harrison (2005)	Self-discipline/Zelf discipline
Werkwaarden5cons	Brown, Trevino & Harrison (2005)	Respectful/Respectvol
Werkwaarden6strans	Brown, Trevino & Harrison (2005)	Experimental/Experimenteel
Werkwaarden7strans	Brown, Trevino & Harrison (2005)	Creative/Creatief
Werkwaarden8strans	Brown, Trevino & Harrison (2005)	Seeking to change/Zoeken naar afwisseling
Werkwaarden9strans	Brown, Trevino & Harrison (2005)	Courage/Durf
Werkwaarden10strans	Brown, Trevino & Harrison (2005)	Curious/Nieuwsgierig

Table 3
Means, Standard deviations and Inter correlations of Interrupting for all employees

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Interrupting	0.4	0.93																		
2. Gender	1.35	.48	-.08**																	
3. Age	49.25	10.51	.06**	-.24**																
4. Education Level	2.92	1.14	.14**	-.08**	-.16**															
5. Giving own opinion	3.50	5.75	.44**	-.09**	.07**	.20**														
6. Providing facts	4.05	7.58	.41**	-.05*	.06**	.17**	.81**													
7. Shape the conversation	.98	3.33	.40**	-.07*	.05*	.17**	.69**	.74**												
8. Leader/Follower	1.93	.26	-.40**	.06*	-.05*	-.17**	-.8**	-.88**	-.88**											
9. Job-satisfaction	5.55	1.02	.10**	-.01	-.04	.17**	.16**	.19**	.15**	-.17**										
10. Courage	4.72	1.46	.12*	-.08**	-.09**	.13**	.20**	.19**	.16**	-.17**	.24**									
11. traditional	2.74	1.59	-.10**	-.01	.05	-.25**	-.21**	-.23**	-.21**	.22**	-.07**	-.13**								
12. Enthusiastic	4.45	1.29	.15**	.01	-.07*	.15**	.17**	.18**	.14**	-.16**	.56**	.34**	-.04							
13. Interested	4.91	1.12	.15**	.03	-.05	.17*	.17**	.16**	.12**	-.14**	.46**	.32**	-.05	.74**						
14. Inspired	4.25	1.28	.12**	-.03	.07**	.06*	.11**	.12**	.07*	-.09**	.46**	.3**	.08**	.73**	.69**					
15. Proud	3.96	1.40	.12**	.01	-.05*	.05	.11**	.15**	.11**	-.13*	.51**	.29**	.06*	.64**	.61**	.65**				
16. Scared	1.81	0.93	-.01	.04	-.02	-.10*	-.00	-.02	-.01	.01	-.12**	-.01	.20**	-.07**	-.02	.05				
17. Upset	2.20	0.98	.09**	.07**	.01	-.04	.03	-.00	-.01	.02	-.20**	.04	.09*	-.05	-.04	-.06*	-.02			.38**
18. Nervous	2.01	.95	.06*	.01	-.04	-.02	.02	-.01	.02	-.00	-.15**	-.09**	.11**	-.02	.00	.03	.05*	.55**		.46**
19. Irritable	2.63	1.02	.11**	.07**	-.02	.01	.06*	.00	.02	.01	-.24**	.00	.02	-.13**	-.05	-.15**	-.12*	.29**	.59**	.42**

*P<.05 (two-tailed)
**P<.01 (two-tailed)