How leader’s age is related to leader effectiveness: Through leader’s affective state and leadership behavior

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ABSTRACT
This study examines the effect of leader’s age on leader’s affective state, leadership behavior and the overall leader effectiveness. Methods used in the present study entail: 1) inter-reliable coding of leader behaviors, captured through video recordings made during regular staff meetings; and 2) surveys that measured followers’ perception of the leader and leaders’ perception of the staff meeting and of their own leadership skills. The data consist of 32 leaders and 405 followers who are employed by a large Dutch public-sector organization. No direct and indirect relationship between leaders’ age and leader effectiveness is found. Instead, the results revealed a significant negative link between leader’s negative affect and transformational leadership. In the discussion we reflect on the findings of the study, sketch some practical implications, and highlight some strengths and limitations.

Keywords  
Age, affective state, Positive Affect, Negative Affect, PANAS, observed leadership behavior, transactional leadership behavior, transformational leadership behavior, effective leadership.
1. INTRODUCTION

Effective leadership is an important factor for organizational success. Especially within the field of leadership, behavior is widely regarded to be one of the most influential factors. An important classification or behavioral taxonomy is that of Avolio (1999) and Bass (1998); the transactional-transformational leadership theory. Transactional leaders motivate their followers to fulfill their leaders’ expectations by rewarding and monitoring followers’ task executions (Burns, 1978). Transactional leadership behavior is similar to task-oriented behavior (Yukl, Gorden & Taber, 2002). Task-oriented leadership reflects behaviors focused on promoting efficient and effective task accomplishment, clarifying, explaining and informing (Yukl, 2013). In contrast to transactional behavior, there are also leaders who show transformational behaviors (Yukl, 2013). Transformational leaders inspire followers to work for collective goals and move beyond their own self-interests. Transformational behavior relates to relation-oriented behavior (Bass, 1990). This leadership behavior tries to motivate and stimulate their followers to perform well. Relation-oriented leadership reflects behaviors that display the urgency of interpersonal relationships (e.g., treating followers as equals, being friendly and approachable; Yukl, 2013). Yukl’s taxonomy shows convincingly that leaders’ relation-oriented and task-oriented behaviors are both important and should be included when studying leader behaviors in organizational settings such as regular staff meetings.

Apart from leader behavior, which has been found to be an important determinant for leadership effectiveness in the literature, age is considered to be another important determinant. Drawing upon the early trait theories (Bass, 1990; Stogdill, 1948), a leaders’ chronological age is one of the most important demographic factors in relation to effectiveness. Particularly noteworthy is the relation between the age of world’s greatest political leaders and the world’s greatest political revolutionaries. The group ‘world’s political revolutionaries’ is characterized predominantly by younger individuals rather than older ones, while nearly all political leaders achieve top political positions over the age of 40. In addition, most nascent entrepreneurs tend to be younger than 35 whereas the median age for the CEO’s of Fortune 500 companies is 55 (Blondeg, 1980; Korunka, Frank, Lueger, & Mugler, 2003; Rejai & Phillips, 1979). The patterns mentioned above, show that both younger and older leaders are effective in their own field. Therefore, leader effectiveness is interesting to study with a wide variance in age.

The study of leadership behavior and age is interesting for several reasons (Zacher & Frese, 2009). For instance, demographic changes (i.e., the anticipation of longer working lives results in an outlook of a rapidly aging workforce) have led to an increased interest in the study of leadership behavior and age (Farr & Ringsis, 2002; Kanfer & Ackerman, 2004). Therefore, studying leadership in relation to age is also of practical importance for organizations. Older workers remain employed longer (due to changing political regulations) and declining birth rates have dramatically increased the share of older employees (Hedge, Borman & Lammheim, 2006). Accordingly, issues surrounding the management of an aging workforce are beginning to take center-stage in many areas of organizational research (Hedge & Borman, 2012). More generally, Schaie and Willis (2011) studied the psychological effects of aging. From a leadership perspective, the most interesting findings in this literature are that an individual’s age has consequences for their emotional functioning and affective state (Scheibe & Zacher, 2013). Because leadership is inherently an emotional phenomenon, age may decisively influence key aspects of leadership, such as the behavior that they show (Ashkanasy & Tse, 2000; George, 2000). With this, we examine the effect of leaders’ age on their positive affective and negative affective state.

Zacher, Rosing and Frese (2011) conclude that “leadership researchers have hardly considered age as a substantial concept” (p. 43). Current studies about leaders’ age and leadership behaviors have shown mixed results (DeRue, Nahrgang, Wellman & Humphrey, 2011). Moreover, in contemporary research leaders’ age has featured as control variable (Walter & Scheibe, 2013). During this study, we tested the direct effect of age on leader effectiveness and examined the indirect effect of leaders’ age on leader effectiveness, mediated by leader affective state and leadership behavior. Besides that, DeRue et al. (2011) designed a classification scheme which summarized studies that linked age and leadership behavior. Most studies in this classification scheme rely only on quantitative survey measures (Hit & Tyler, 1991; Barbuto, Fritz, Matkin, & Marx, 2007; Ng & Sears, 2012). Based on this scheme, Walter and Scheibe (2013) developed a novel, theoretical, emotion-based framework that explained age-leadership behavior linkages. They have integrated theories of emotional aging with research on emotions and leadership, but empirical work is missing. We bridge this gap by empirically testing leadership behavior with leaders’ age and their affective state.

Furthermore, there is hardly any literature linking age and leader affective state. Joseph, Dhanani, Shen, McHugh, McCord, (2015) examined in their meta-analysis the relationship between leader trait affectivity and leadership criteria such as transformational leadership, transactional leadership and leadership effectiveness. The analysis of Joseph, Dhanani, Shen, McHugh and McCord (2015) does not address the variable ‘age’ with leader trait affect and leadership criteria. Through our present study we aim to contribute to the extant literature by examining whether leadership effectiveness is influenced by age. In order to do this, we will assume a research model of leaders’ age and leadership effectiveness and examine whether two additional variables, leaders’ affective state and leadership behavior, mediate this relationship. In the appendix, a figure is added which contains the research model.

So the research question is: “What is the influence of leader’s age on leadership effectiveness and how mediate leader’s affective state and leadership behavior this relationship?”

Furthermore, the present study differs among others through the use of a video observation method. The behavior of leaders and their followers during regular staff meetings will be observed and coded using a behavioral coding scheme. Few existing studies used such observational methods.

2. THEORY AND HYPOTHESES

According to the psychological literature, researchers suggest that age relates to leadership in a complicated way. Evidence for the relation between age and leadership can be found in professions that require a substantial amount of specialized knowledge and experience, such as in science, politics, and arts (Van Vught, 2006). As previously noted, it is commonly believed that age and experience may play important roles in the behaviors that leaders display. However, most studies on age and leadership are limited to either retirement or adolescence (Barbuto, et al., 2007). In this section, we set out the theoretical background of age, leaders’ affective states and leadership behavior. First, we discuss the trait variable ‘age’. Second, we set out positive and negative affective states and
examine the relationship of age and affective states. After that, we set out the different leadership behaviors (transactional leadership behavior and transformational leadership behavior) and examine the relationship between affective state and leadership behavior and the relationship between age and leadership behavior. Following that we shall propose how effective leadership might be related to transactional or transformational-oriented leadership behavior. In the appendix, an illustrated hypotheses scheme is added.

2.1 Age

Styles of leadership may vary based upon age. Cagle (1988) has emphasized that age is one of the most important factors that determine the leadership style. It is commonly believed that age and experience are important contributors when determining which behavior a leader displays. Ahizau (1989) suggests that in many cultures people see experience as a function of age. Emotional aging research has identified common changes in the emotional experience which influence behavior. These changes concern specific gains and losses in individuals’ affectivity (Watson & Naragon, 2012). Walter and Scheibe (2013) argued that such changes can influence leaders’ behaviors and outcomes and, thus, may serve as mediating mechanisms between age and leadership behavior. In our research we link the developments of emotional aging; which is a dependent outcome of age, toward leaders’ positive and negative affective state. In the current research we focus on chronological age. Schalk et al. (2010) identified chronological age as “the first and primary conception of age” (p. 79). In this study we focus solely on chronological age, as the measure of leaders’ age consisted only of one question in our survey such as: ‘How old are you?’

2.2 Positive affect and negative affect

Watson, Clark and Tellegen (1988) presented a two-factor – positive affect and negative affect – model. This so-called ‘PANAS schedule’ consists of positive and negative affect scales and is considered to be reliable and valid. The positive affect and negative affect scales represent affective state dimensions. The following ten sufficient descriptors for positive affect scale are developed in the PANAS method: attentive, interested, alert, excited, enthusiastic, inspired, proud, determined, strong and active (Watson, Clark & Tellegen, 1988). High positive affect is a state of high energy, full concentration, and pleasurable engagement (Watson & Tellegen, 1985). This kind of state reflects stable individual differences in positive emotional experience (Watson & Naragon, 2009). Positive affect is associated with top-down processing used in response to familiar and kindly environments. This means that positive affect used heuristic approaches that rely on existing knowledge and assumptions (i.e., in the field of organizational decision making) (Forgas & Bless, 2006).

In contrast, negative affect is a general dimension of subjective distress and unpleasurable engagement that expresses a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness. The PANAS method developed ten sufficient descriptors for negative affect scale. These ten final versions consisted of two terms from each of the other five traits: distressed, upset (distressed); hostile, irritable (angry); scared, afraid (fearful); ashamed, guilty (guilty); and nervous, jittery (jittery). Tellegen (1985) suggested that high negative affect is a major feature of anxiety and depression. Negative affect is related to self-reported stress and coping (Clark & Watson, 1986). Negative affect is associated with bottom-up processing in response to unfamiliar or problematic environments, and promotes controlled approaches that rely on externally drawn information (Forgas & Bless, 2006).

Also positive affect and negative affect are related to individual differences in positive and negative emotional reactivity (Tellegen, 1985; Watson & Clark, 1984). Positive affect and negative affect correspond to the dominant personality factors of extraversion and anxiety, and are related to individuals’ emotional experience (Tellegen, 1985; Watson & Clark, 1984; Watson & Naragon, 2012). Another important finding is that recent studies have identified that positive affect is relatively independent from negative affect (Watson & Clark, 1984). Other scholar also mentioned this, for instance Thompson (2007). In his qualitative and exploratory quantitative study he developed and validated a short form of the PANAS schedule. Thompson (2007) reported positive affect and negative affect with low correlating dimensions. Also Bradburn (1969) demonstrates that the two affect dimensions were independent of one another. Hence, scores on one affect dimension did not predict the score on the other affect dimension: therefore, positive and negative affect was not an extreme pole of one underlying dimension, but of two separate dimensions. Therefore, in this study the two affective state dimensions are discussed independently of one another, and we discuss how they are related to age and leadership behavior.

2.2.1 Relation between age and affective state

Existing studies have found significant age effects on leaders’ affective state and overall effectiveness. Surprisingly, there are complex and contradictory pattern of findings (Walter & Scheibe, 2013). Doherty (1997), for example, reported that younger leaders were perceived as more effective than older leaders. In contrast, Shore, Cleveland and Goldberg (2003) found that leader age and follower satisfaction were positively related among older followers but negatively related among younger followers. Overall, studies regarding the relation between positive and negative affect and age predict that as people get older, they are increasingly motivated to experience positive feelings and avoid negative feelings (Scheibe & Zacher, 2013). This assumption is supported by other work. For instance, Blanchard-Fields (2007) argued that older individuals repeatedly encounter emotional situations and so they learn to better comprehend and resolve such events. Besides that, older individuals can predict the emotions elicited by future events more correctly. Lükenhoff, O’Donoghue and Dunning (2011); Scheibe, Mata and Carstensen (2011) report that older individuals have higher control of their emotions. Also, other recent studies have shown that older individuals’ daily emotions are more positive and stable compared to younger individuals’ (Scheibe, et al., 2011; Riediger, Schmiedek, Wagner, & Lindenberger, 2009). This implies that older leaders’ shown more positive affect. This development is mainly driven by a reduction in high-arousal negative affective state (e.g., anger) and an increase in low-arousal positive state (e.g., contentment) whereas low-arousal negative affective state (e.g., sadness) and high-arousal positive affective state (e.g., enthusiasm) remain relatively unchanged (Scheibe, English, Tsai, & Carstensen, 2011; Stone, Schwartz, Broderick, & Deaton, 2010). Another important finding is that older individuals prioritize positive information over negative information (Reed & Carstensen, 2012) and therefore pay greater attention to positive versus negative social cues, which positively affects the display of positive affective emotions (Kellyough & Knight, 2012). As mentioned in the previous paragraph, negative affect is associated with bottom-up processing in response to unfamiliar or problematic environments. Younger leaders are less experienced and therefore more dependent upon outside information with controlled approaches that relies on externally
drawn information (Forgas & Bless, 2006). This result contributes to the prediction that younger leaders show more negative affective state. Hence, we propose the following hypotheses:

H1a: An older leader displays more positive affective state. H1b: A younger leader displays more negative affective state.

2.3 Leadership behavior

In the past half century, hundreds of survey studies have examined the correlation between leadership behavior and various indicators of leadership effectiveness (Bass, 1990; Yukl, 2002). A major problem in research and theory on effective leadership has been the lack of agreement about which behavior categories are relevant and meaningful for leaders (Yukl Gordon & Taber, 2002). Scholars are aware of how difficult it is to compare and integrate results from studies that use different sets of behavioral categories. Occasionally, different terms have been used to refer to the same type of behavior. At other times, the same term has been defined differently by various theorists. Based on previous observations in an existing study (Rackham & Morgan, 1977), a leader shows various activities in a group context. These activities include: ‘seeking information, giving information, testing understanding, summarizing, procedural proposals, content proposals, supporting, disagreeing, defending/attacking and building’. Hence, when examining leader behavior, it is therefore important to take into account the so-called “full range” of leadership behavior (Bass & Bass, 2008; Avolio, Bass, & Jung, 1999; Bass, 1985; Bass & Avolio, 1994). The full range of leadership behavior consists of three general types of leadership: transactional (contingent reward, active management by exception, passive management by exception), transformational (individual consideration, idealized influence, intellectual stimulation, and inspirational motivation) and laissez-faire. This full range model was developed to broaden the range of leadership styles typically investigated in the field. It is necessary to measure the validity of the full range of leadership behaviors. Bass (1985) developed the ‘Multifactor Leadership Questionnaire (MLQ)’. The MLQ measured both transactional and transformational leader behavior. It includes the complementary dimensions of transformational and transactional leadership with sub-scales to further differentiate leader behavior. Also Yukl (2012) developed an instrument, namely, the 2-factor ‘task-versus relation oriented behavior model’. Yukl’s and Bass’ leader behavior models overlap each other in the leadership literature. Therefore, in our study we examine transactional versus transformational leadership behavior.

2.3.1 Transactional leadership behavior

Bass (1990) characterizes a transactional leader as one which focuses on transactions between leaders and employees. This transaction includes: “The transaction of promising and reward for good performance, and on the other hand threatening and disciplining for poor performance” (p. 20). The leader gets things done by making and fulfilling the promises of recognition. Prominent examples include initiating structure (e.g., clarifying task roles, coordinating followers’ actions structure and structuring the conversation). Two dimensions that characterize transactional leadership style are contingent reward and management-by-exception (active and passive). Contingent reward consists of offering rewards for good performance and effort. Employees receive incentives after they accomplish their tasks to stimulate their task motivation. Management by exception is split up into two forms. The active form consists of watching and searching for deviations from rules and standards and takings corrective action (i.e., actively monitoring before mistakes are made). Passive management by exception is shown after standards are not met (i.e., correcting after mistakes are made). In the passive form, the leader does not give direction if the old ways are satisfying and followers still achieve the performance goals (Hater & Bass, 1988). Bass and Riggio (2006) suggest leaders with a large span of control used management by exception passive more often. Bass and Riggio (2006) suggest that some behaviors lead to more committed, loyal and satisfied followers than others. Also Waldman, Bass and Yammarino (1990) showed in their study that contingent reward behavior can be seen as the basis of effective leadership. Contingent reward is transactional when these incentives are material (e.g., bonus). These findings are also established by Bass and Avolio (1994). In their full range of leadership model, contingent reward leadership was the only leadership behavior that was seen as effective. More ineffective compared with contingent reward is management by exception. Bass and Avolio (1994) showed that leaders who use management by exception lack both inspirational appeal and motivational power.

Since transactional leadership is based on the concept of exchange, whereby the leader engages in monitoring follower activities, task monitoring can be seen as a key transactional leader behavior (Bass, 1990). Besides the rewarding behavioral dimension of transactional leadership behavior, Judge and Piccolo (2004), Lowe, Kroeck and Sivasubramaniam (1996) and Podsakoff, Bommer, Podsakoff, and MacKenzie, (2006) have highlighted the importance of task monitoring in leadership. Hence, we linked transactional leadership with task-oriented leadership behavior. Yukl et al. (2002) founds that transactional leadership include some task behaviors. These task behaviors include: short-term planning, clarifying responsibilities and performance objectives and monitoring operations and performance (Yukl et al., 2002). Hodgson (2004) noted that task-oriented style leads to relative goal stability with active planning and structuring. Followers know what is expected of them and they clearly understand the messages and goals to be reached (Putman and Sorensen, 1982). This is a main objective of the transactional leadership style.

2.3.2 Transformational leadership behavior

Scholars have introduced the concept of transformational leadership. House (1977) has published an article on transformational leadership. Burns (1978) write about transformational leadership in 1978 and Bass (1985) published his book ‘Leadership and Performance beyond Expectations’. An important insight is that Bass (1985) differs from Burns’ work. Burns (1978) viewed transactional and transformational leadership as opposites ends of the same continuum and leaders could only be transformational if results and goals are satisfied. Bass (1985) noted that “most leaders do both but in different amounts” (p. 22). He argued that transactional leadership provides the base for effective leadership and performance at expected standards, while transformational leadership leads to performance beyond expectations. Hence, transactional leaders ensure that expectations are met, which is the foundation on which transformational leaders build to motivate their followers to perform beyond expectations. This opinion is shared in other work (e.g., Burns, 1978; Treviño, Van Wart, and Wang 2008). Hater and Bass (1988) and Howell and Avolio (1993) have shown that the more effective leaders are both transactional, in a path goal sense, and transformational, which is referred to as ‘the augmentation effect’. This effect assumes that the transformational leadership style is expected to be ineffective without a transactional relationship between leader and follower (Bass, Avolio & Goodheim, 1987). Therefore, transactional
leadership behavior adds to the effectiveness of a leader with a transformational leader behavior (Bass, Avolio, Jung, & Berson, 2003; Hater & Bass, 1988; Bass, 1985; Wofford & Goodwin 1994).

Bass (1990) defined transformational leadership as “superior leadership” (p. 21). Transformational leadership is characterized by the four 1’s: Idealized influence, inspirational motivation, individual consideration and intellectual stimulation. Idealized influence means that followers identify with their leaders and respect and trust them. Inspirational motivation refers to creating and communicating an attractive vision of the future and to the leaders’ own optimism about this future. These behaviors are important in motivating followers to use their capabilities for collective goals and emphasizing collective identities. Individual consideration means that leaders are mentors for followers and that they have attention for the fact that every follower had his or her own needs and abilities. Thereby, leaders enhance the personal development of followers (Bass et al., 2003). Individualized consideration is recognized by several leadership scholars as a key factor in influencing follower satisfaction as well as high performance outcomes (Bass & Bass, 2008; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Schriesheim, Wu & Scandura, 2009; Yukl, 2006). The reason for this is that leaders who show individualized consideration address the uniqueness of individuals. This results in progressing individual potency. Finally, intellectual stimulation refers to challenging followers to rethink some of their ideas and to take a different perspective on the problems they face in their work. Hereby, new thinking patterns are encouraged (Avolio & Bass, 2004). Leaders who applied transformational leader behavior may be charismatic to their followers and thus inspire them. Besides that, they may meet the emotional needs of each employee and they may therefore intellectually stimulate followers (Bass, 1990). Charismatic leaders inspire and excite their employees with the idea that they may be able to accomplish great things with extra effort. Therefore, charismatic leadership is a central succeeding characteristic.

2.4 Relation between age, leader affective state, leadership behavior

In the previous paragraphs we explored the effects of positive affective state and negative affective state on leaders’ age and we discussed the two main leadership behaviors; transactional leadership behavior and transformational leadership behavior. In this paragraph we connect leader affective state and leadership behavior to each other. Subsequently, we relate leadership behavior to age.

2.4.1 Relation between positive and negative affective state and leadership behavior

Joseph et al. (2015) noted that the role of leader affective state is a meaningful predictor of leadership behavior. In their meta-analysis, Joseph et al. (2015) studied the relationship between leader trait affectivity and several leadership criteria (including transformational leadership, transactional leadership and leadership effectiveness) and found that the relationship between leader’s affectivity states and leadership effectiveness operates through transformational leadership. Transformational leaders display positive emotions to communicate a vision, motivate followers and elicit positive behavioral change (Rubin, Munz & Bommer, 2005). Bass and Avolio (1994) also shared this view by suggesting that leader’s positive emotional displays (a characteristic of transformational behavior) foster high quality follower relationships and engender positive emotions in followers. Relevant to the current study, the scholarly literature on leader affect and leadership behavior suggests that leaders who score high on positive affect often display positive affective state which also influence follower positive affective state (Bono & Ilies 2006; Eberly & Fong 2013; Johnson, 2009; Newcombe & Ashkanasy, 2002; Sy, Côté & Saavedra, 2005). This process is the so-called mood contagion processes. The relationship between leader’s positive affective state and leadership criteria (i.e., leadership behavior) proposed a positive relationship that is driven by this mood contagion processes. This process suggests that positive affect of the leader influences followers’ positive affective state that subsequently results in leadership effectiveness. Thus, as noted by George and Brief (1992), ‘leaders who feel enthusiastic and energetic themselves are likely to similarly energize their followers, whereas leaders who feel distressed and hostile are likely to negatively activate their followers’ (p.84). Recently scholars (Gaddis, Connelly & Mumford, 2004; Lewis, 2000 and Newcombe & Ashkanasy, 2002) argued that leaders who express positive affect are perceived as more effective and charismatic than those who do not. Hereby, the expressions of positive affect can be seen as one of the specific behavior indicators of charismatic leadership (Bass, 1985). Charisma is a central point in transformational leadership. Damen, Knippenberg and Knippenberg (2008) have also supported the positive relationship between positive affect and transformational leadership behavior. In their scenario experiment, Damen, Knippenberg and Knippenberg (2008) found that charismatic leaders display more positive emotions. Bono and Ilies (2006) have supported this point as well. Moreover, Avolio and Bass (2002) mentioned that transformational leadership behavior consists of affect-related content (e.g., displays of optimism), while a leader who shows transactional leadership behavior is more focused on rewarding followers for their task-related exchanges. Therefore, transactional leadership is more of an economic exchange between leaders and followers (i.e., if followers perform well, they are rewarded) and less of an emotional exchange, which is involved in transformational leadership behavior. Thus, we expect that positive affective state is positively related to transformational leadership behavior.

In contrast, negative affect displays feelings of distress, anger and fear. Existing research mentioned that mood contagion processes can also be applied to leaders’ negative affect-leadership relation (Johnson, 2008; Sy et al., 2005). In addition, Gaddis, Connelly and Mumford (2004), (Lewis (2000) argued that the process of contagion results in lower ratings of transformational leadership and leadership effectiveness. Moreover, we could argue that leaders’ negative affective state should be a part of a leader’s transactional exchange process with a follower who is underperforming. This transactional exchange process consists of the transaction of promising and reward for good performance, and on the other hand threatening and disciplining for underperforming. Therefore, we could assume that negative affect is related to transactional leadership behavior.

In sum, the previous arguments lead to the following hypotheses:

H2a: Positive affective state is positively related to transformational leadership behavior.

H2b: Negative affective state is positively related to transactional leadership behavior.

2.4.2 Relation between age and leadership behavior

Leaders who used a transformational leadership style create an emotional bond between leader and follower by arousing
enthusiasm for a common vision. Therefore transformational leadership goes beyond rational exchanges. This statement is examined by Kearney (2008). In his field study Kearney showed a positive relationship between leaders’ age and transformational leadership behavior. Kearney (2008) argued that a team with an older leader is more open to leader’s transformational behavior because the followers may be more accepting of the leader’s special status.

On the other hand, younger leaders lack experience. Younger leaders are therefore more dependent on outside information with controlled approaches that rely on externally drawn information (Forgas & Bless, 2006). Therefore, we suggest that such leadership approach displays task-controlled leader behavior that characterized transactional leadership behavior.

Based on the foregoing arguments and hypotheses, we propose the following hypotheses:

H3a: An older leader shows more transformational leadership behavior

H3b: A younger leader shows more transactional leadership behavior

2.5 Leadership effectiveness

Thus far, we have discussed leader’s age as a predictor of leader affective state, and leader affective state and age as predictor of leadership behavior. Now the following question arises: “Does transformational or transactional leadership behavior make a difference in leadership effectiveness?” Existing studies have tried to tackle this question. Many of whom have documented a positive link between transformational leadership style and leader effectiveness (e.g., Judge & Piccolo, 2004). On the other hand, we know far less about the transactional style in relation to leader effectiveness. Transactional leadership is based on the concepts of exchange or rewarding (e.g., contingent reward style) and on the concept of task-monitoring. Task-monitoring has not featured prominently in transactional leadership literature (Wilderm & Hoogeboom, 2013). According to Bass and Avolio (1994) management by exception active, a transactional component, is neither effective nor ineffective. Therefore it seems unlikely that leaders who use management by exception active are able to influence their employees’ work engagement and are thus less effective. Moreover, Van der Weide and Wilderom (2004) suggest that followers dislike negative task-directed controlling behavior. Such leader behavior demotivates followers. This argument is also shared in other work (e.g., Howell & Avolio, 1993; Nederveen-Pieterse, Van Knippenberg, Schippers, & Stam, 2010). Several leadership scholars recognize individualized consideration, one of the four transformational dimensions, as a key factor in influencing follower satisfaction as well as high performance outcomes (Bass & Bass, 2008; Gardner, et al., 2005; Schriesheim et al., 2009; Yukl, 2006). Based on the foregoing, we expect the following hypotheses:

H4a: Transformational leadership behavior is positively related to leadership effectiveness.

H4b: Transactional leadership behavior is negatively related to leadership effectiveness.

3. METHODS

3.1 Design of study

In this cross sectional study design different data sources are used: (1) A reliably video-coded monitoring leaders’ and followers’ behavior during regular staff meetings, (2) a survey measured followers’ perception of the leader, and another survey measured leaders’ perception of the staff meeting and of their own leadership skills. The overall effectiveness of the leader was rated by survey scores and video coding. The survey measured the perception of the followers about leader effectiveness. In addition, systematic video-coding measured the observed leaders’ behaviors. By using variety of methods and sources, common source bias is reduced in this study (Podsakoff, MacKenzie, Lee & Podsakoff, 2003)

3.2 Sampling

The leader sample consisted of 32 leaders employed in a large Dutch public sector organization. Those leaders were either from M1 level of management or M2 level of management within this Dutch public organization. The sample comprised of 22 male (67.7%) and 9 female (29 %) leaders (one leader did not complete the survey) and the average age was 50.68 years old, ranging from 42 to 61 (SD=5.3). The average job tenure of the leader sample is 9.25 years ranging from 6 months to 43 years (SD = 12.59)

In addition to the leader sample, the sample of the followers consisted of 405 employees employed at the same large Dutch public sector organization as the leaders. The sample was comprised of 261 male (64.4%) and 144 female followers (25.7%) (40 followers did not fill in this question) and the average age was 49.25 years old, ranging from 21 to 64 (SD=9.91). The average job tenure of the followers is 24.7 years (SD=13.48), ranging from 3 days to 46 years.

The leaders and followers were asked, directly after the video recorded staff meeting, to fill out a survey. Leaders were asked to rate their expression during the meeting and followers were asked to note how effective the leader was.

3.3 Measures

Age Leaders’ age was asked in the survey questionnaire. The average leaders’ age is 50.68 years old, ranging from 42 to 61 (SD=5.3)

Positive affect – negative affect. The Positive and Negative Affect Schedule (PANAS) consists of a 10-item negative affect scales and 10-item positive affect scales. In this study we used a reduced number of items of the PANAS schedule, developed by Watson, Clark and Tellegen (1988). The 4 descriptors we used for the positive scale are: enthusiastic, interested, inspired and proud. The Cronbach’s Alpha was 0.82.

In contrast, we used three validated descriptors for the negative affective scale: scared, nervous, irritable. The Cronbach’s Alpha was 0.64.

Watson, Clark and Tellegen tested the PANAS on reliability and validity. The positive and negative affective scales are reliable and valid and also brief and easy to administer. The leaders’ positive and negative affective state was measured with a question about the ambiance. The response categories ranged from 1(never) to 7(always).

Observed leader behavior Actual leadership behavior was systematically video-coded, using specialized Noldus software. An average of 90 minutes of videotapes material was collected per regular staff meeting. A behavioral transcription software program – the Observer XT 12 – was used to analyze the videotapes (Noldus, et al., 2000; Zimmerman et al., 2009). Two independent trained coders systematically analyzed each videotape in the leadership lab at the University of Twente. During the coding activity they used a preset coding scheme containing 15 mutually exclusive behaviors to ensure systematic and reliable coding (Luff & Heath, 2012; Van Der Weide, 2007).

The coding scheme includes key transactional leader behaviors, transformational leader behaviors and negatively or
counterproductive leader behaviors. The codebook included detailed indications for coding 15 mutually exclusive leader behaviors. These behaviors can be grouped into 3 meta-categories (see also Gupta, Wilderom, & Van Hillegersberg 2009): self-defending, steering and supporting. Behaviors in the categories steering and supporting consist of transactional and transformational behavior, which we used in the hypotheses. The behaviors were coded on the basis of duration and frequencies of the observed behavior. For an overview of the behaviors that are coded, with some illustrative examples, see Appendix.

**Observed leadership behavior – transformational and transactional leadership behavior** In this study we focus on the observed transformational leadership behavior. Therefore, we used the observed frequency variables of ‘individual consideration and positive attention’.

On the other hand, we also focused on the observed transactional leadership behavior. Therefore, we used the observed frequency variables of ‘negative feedback’ and ‘task-monitoring’.

The Cronbach’s Alpha for the observed transformational and transactional behavior separately was 0.70. However we used these behavior indicators because the behaviors are observed and are therefore a good instrument to measure observed transformational and transactional leadership behavior.

**Leader effectiveness** After the recorded meeting the follower and leader filled in a survey to evaluate the meeting and the degree to which a leader is perceived as an effective leader. The leader effectiveness is measured with the 4 overall-effectiveness items from the Multi Leadership Questionnaire. These items consist of questions such as: ‘My leader is leading our team effective’, ‘My leader is effective in meeting my job-related needs’, ‘My leader is effective in meeting organizational requirements’ and ‘My leader is effective in representing my needs’, ‘My leader is effective in meeting organizational requirements’ and ‘My leader is effective in representing my needs’. The followers have filled in the score sheet independent of each other, so they could not influence each other in giving scores. Follower rating effectiveness scores were calculated by averaging the scores given for each leader, which ranged from 1 to 7. The overall Cronbach’s Alpha was 0.88.

**3.4 Video Observation Method**

The videos were precisely coded and analyzed through the behavioral software program “The Observer XT”. This program is developed for the analysis, management and presentation of observational data (Noldus et al., 2000).

Before actively participating in the coding process, each coder received extensive training in using “The Observer XT” software and learned in considerable detail how to work with the coding scheme (Van der Weide, 2007). This training tends to increase the accuracy and punctual coding of the different behaviors (Psathas, 1961). In order to avoid subjectivity bias, the two independent coders discussed their results after minutely coding. They do this by using the so-called confusion error matrix and inter-rater reliability outputs, generated by “The Observer XT”. When significant differences existed between the results of the coders, the video fragment was retrieved and viewed again. The inter-rater reliability stands for the percentage of agreement of a specific code within a restricted time range of two seconds. The obtained average inter-rater reliability percentage was 95%.

Prior to each meeting, the video cameras were stationed on three fixed positions around the meeting room. According to Erickson’s (1992) and Mead’s (1995), the presence of the video cameras is forgotten short after the start of the meeting. Also Kent and Foster (1997) argued that videotaping results indifferences in leader and followers behavior. They behave naturally. In addition, an observer, who took place in the field, causes more obtrusive and abnormal behavior of leaders and followers. Therefore, observer bias is avoided through the use of video cameras instead of outsiders sitting in the same room who observe the meeting and take notes. Also video recording results in meetings that take place without any interference.

**3.5 Behavioral coding scheme**

In order to capture specific leadership behavior during daily work practices, a behavior coding scheme was developed (Gupta et al., 2009; Nijhuis, Wilderom, & Van den Berg 2009; Van der Weide, 2007). In the appendix, a table is added that contains different behaviors, which are coded in this study. Each behavior in the table contains illustrative examples to understand the different behaviors in more detail. Bales (1950) and Borgatta (1964) have developed a solid base for this video behavior coding scheme. In their exploratory study they observed interactions between leaders and their followers in small group settings. Bales (1950) and Borgatta (1964) made a distinction between neutral task-oriented behavior, positive-social emotional behavior and remaining socio-emotional behavior. Bales’ (1950) and Borgatta’s (1964) work led to a set of mutually exclusive behaviors and provided a practical scheme for coding of a range of leader’s actual behavior (Yukl, 2012). In addition, Feyerherm (1994) also measured leader behavior. He has used an experimental approach and extended the work of Bales and Borgatta with several task- and social-oriented observable behaviors. The three frameworks (Bales, 1950; Borgatta, 1964; Feyerherm, 1994) have two commonalities. First, all of the three schemes assessed directly observable behavior. Second, all of the three studies used behavioral schemes to code leader behavior in a group context (e.g., Avolio et al., 1999; Bass & Avolio, 1995; Pearce et al., 2003; Yukl et al., 2002). Yukl et al. (2002) has also developed a behavior scheme. In this study, we also used Yukl’s et al. (2002) taxonomy. Since leaders’ behavior can have several objectives, it may be more accurately described in terms of fine-grained, observable parts than in just one or two meta-constructs (such as transformational/transactional leadership).
4. RESULTS
Table 1 shows an overview of the duration and frequency of each video-filmed and - coded behavior of all 29 leaders during the regular staff meetings (three staff meetings were not video observed). ‘Informing’ behavior is the most displayed leader behavior with the highest duration and frequency (40.20 % of the time shown in duration and 24.02% of the time shown in frequency). Another behavior, which was frequently observed, and with the second highest duration, is ‘visioning; one’s own opinion’ (14.80% of the time shown in frequency and 17.16% of the time shown in duration). In contrast, table 1 also shows the displayed behaviors with the shortest frequency and duration. Showing disinterest behavior is the least displayed leader behavior with the shortest duration (0.17% of the time shown in frequency and 0.51% shown in duration). In general, transactional leadership behaviors are, in comparison with transformational and counterproductive behavior, the most displayed behavior. Transactional behavior included task-oriented behavior like: ‘Informing, structuring the conversation, directing, task monitoring, agreeing and disagreeing’. Transactional behavior is shown in 63.61% of time (frequency). Transformational behavior included relation-oriented behavior and is shown in 34.77% of time (frequency). Transformational behaviors are ‘positive attention, humor, visioning, providing positive feedback, personal informing and individualized consideration’. The counter-productive leadership behavior, which included ‘showing disinterest, defending owns position and providing negative feedback’, is shown at 4.13% of time (frequency).

After displaying the behaviors of all leaders in the meeting, we focused on the variables studied in this research. Table 2 provides an overview of the correlations. A correlational analysis with Pearson is executed in order to test which variables show a significant (1-tailed) correlation with the dependent variables; leadership effectiveness, leaders’ positive affective state, leaders’ negative affective state, transformational leadership behavior and transactional leadership behavior. The correlations presented in table 2 show that there was only one significant correlation between leaders’ negative affective state and transformational leadership behavior (r=-.38, p<0.05). Furthermore, the zero-order correlation between leaders’ age and leadership effectiveness was not significant. (r=-.14, p>.05).

Table 3 shows the results of regression analyses for the Hypotheses 1a and 1b. Hypothesis 1a, stating that older people display more positive affect, did not find support, therefore Hypothesis 1a was rejected. In addition, Hypothesis 1b, stating that younger leaders display more negative affect, also found no support, therefore Hypothesis 1b was rejected.

Table 4 and Table 5 present the results of regression analyses for the other Hypotheses. Hypothesis 2a cannot be accepted because there is no significant correlation found between leaders’ positive affective state and transformational leadership behavior. Therefore, Hypothesis 2a was rejected. Hypothesis 2b, which stated that there is a positive relationship between leaders’ negative affect and transactional leadership behavior was also not supported. Leaders’ negative affective state is not significantly related to transactional leadership behavior. Hypothesis 3a, which stated that the relationship between age and transformational leadership behavior is positively related, was not significant; therefore, Hypothesis 3a cannot be supported. Also, there was found no significant relationship between leaders’ age and transactional leadership behavior. Therefore, Hypothesis 3b was also rejected. At least, Hypothesis 4a: ‘Transformational leadership is positively related to leadership effectiveness’ and Hypothesis 4b: ‘Transactional leadership is negatively related on leadership effectiveness’ did not find support. Therefore, both Hypotheses were also rejected.

As described, the results show that no significant relations were found for our hypotheses. The absence of significant results could be due to the small sample size of the observed leaders (N=29). We have also conducted a regression analysis with control variables ‘age, job tenure and education’. The results with and without the control variables were the same.

Table 1: Duration and frequency of the leader behaviors in % (n=29)

<table>
<thead>
<tr>
<th>Displayed Behaviors</th>
<th>Duration</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Showing disinterest</td>
<td>0.51</td>
<td>0.17</td>
</tr>
<tr>
<td>Defending own position</td>
<td>2.8</td>
<td>2.97</td>
</tr>
<tr>
<td>Providing negative feedback</td>
<td>1.08</td>
<td>0.99</td>
</tr>
<tr>
<td>Disagreeing</td>
<td>0.54</td>
<td>1.48</td>
</tr>
<tr>
<td>Agreeing</td>
<td>2.12</td>
<td>7.17</td>
</tr>
<tr>
<td>Directing/correcting</td>
<td>0.89</td>
<td>2.99</td>
</tr>
<tr>
<td>Directing/delegating</td>
<td>1.74</td>
<td>2.2</td>
</tr>
<tr>
<td>Directing/interrupting</td>
<td>0.60</td>
<td>3.67</td>
</tr>
<tr>
<td>Task monitoring</td>
<td>5.24</td>
<td>12.42</td>
</tr>
<tr>
<td>Structuring the conversation</td>
<td>11.44</td>
<td>9.66</td>
</tr>
<tr>
<td>Informing</td>
<td>40.2</td>
<td>24.02</td>
</tr>
<tr>
<td>Visioning: one’s own opinion</td>
<td>17.16</td>
<td>14.8</td>
</tr>
<tr>
<td>Visioning: long term</td>
<td>4.85</td>
<td>2.52</td>
</tr>
<tr>
<td>Visioning: own opinion on mission</td>
<td>2.44</td>
<td>1.52</td>
</tr>
<tr>
<td>Individualized consideration</td>
<td>3.22</td>
<td>4.03</td>
</tr>
<tr>
<td>Humor</td>
<td>1.45</td>
<td>2.95</td>
</tr>
<tr>
<td>Providing positive feedback</td>
<td>1.17</td>
<td>1.94</td>
</tr>
<tr>
<td>Personal informing</td>
<td>1.15</td>
<td>1.14</td>
</tr>
<tr>
<td>Positive attention</td>
<td>2.87</td>
<td>5.87</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 2: Correlation among the key variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leader effectiveness</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>-.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Positive Affect Leader</td>
<td>-.08</td>
<td>-.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Negative Affect Leader</td>
<td>-.20</td>
<td>-.08</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Transformational leadership</td>
<td>.21</td>
<td>-.17</td>
<td>-.03</td>
<td>-.38*</td>
<td></td>
</tr>
<tr>
<td>6. Transactional leadership</td>
<td>-.03</td>
<td>-.25</td>
<td>-.10</td>
<td>.21</td>
<td>-.70</td>
</tr>
</tbody>
</table>

* = P <.05 level (1-tailed)

Table 3: Results of regression analyses that tested the hypothesized (mediation) effects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Positive Affect</th>
<th>Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Age</td>
<td>-.11</td>
<td>-.08</td>
</tr>
<tr>
<td>R²</td>
<td>.01</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note: Coefficients are betas (standardized regression coefficients)
In addition, an important finding in this study is the relationship between leaders’ negative affective state and transformational leadership behavior. The results show that negative affective state is significantly associated with transformational leadership behavior ($\beta = -0.38, p<0.05$). Thus, leaders who displayed more negative affect showed less transformational leadership behavior.

At least, the results of the current research did not find direct significant associations between leaders’ age and leadership behavior and effectiveness. However, with the proposed research model we also have the ability to test the indirect linkage between leaders’ age and leadership effectiveness, the so-called mediation effects. This research model is a three-path mediation model. In the Appendix, a three path mediation model is illustrated. A mediation effect is present when the relationship between the independent and mediator variables is significant, and the relationship between the mediator and the dependent variables, while controlling for the independent variable, is also significant. Translated to our research model; we tested if the relationship between age and leadership effectiveness is mediated sequentially, first by leaders’ affective state and then by leadership behavior. The results (see Table 3 and 4) showed that the three-path mediation model was not supported. In more detail, leaders’ age was not significantly related to leaders’ affective state (see Model 1: $\beta = -0.11, p>0.05$ and Model 2: $\beta = -0.08, p>0.05$ in Table 3). In turn, leaders’ affective state was not significantly related to leadership behavior while holding leaders’ age constant (See Models 2: $\beta = -0.5, p>0.05; \beta = 0.20, p>0.05$ in Table 4). These steps are also conducted for the relation between leader’s affective state, leadership behaviors and leadership effectiveness. The relationship between leader’s affective state and leader effectiveness, mediated by leadership behavior, did not find support. Leaders affective state was not significantly related to leadership behavior (see Models 3: $\beta = -0.3, p>0.05; \beta = 0.21, p>0.05$ in Table 4). In turn, leadership behavior did not significantly predict leader effectiveness, while holding leader’s affective state constant (see Model 6: $\beta = 0.28, p>0.05$ and Model 7: $\beta = -0.5, p>0.05$ in Table 5). This means that leadership behavior did not mediate the relationship between leader’s affective state and leader effectiveness. To summarize, no mediation effects were found.

**5. DISCUSSION**

This empirical study uses three different research methods. Observational methods are still rarely employed in leadership studies and specifically in analyzing video-based leadership behaviors, captured during regularly held staff meetings. In addition, we made use of two surveys: one which measured the perceptions of the followers on the leaders and the other survey measured the opinion of the leaders about the staff meetings and their leadership skills.

The analyses present opposing results for our proposed Hypothesis 1. Both correlation and regression results show a (non-significant!) negative association between leaders’ age and positive affect. A possible reason for the opposite findings is that in this study we did not focus on the changing dynamic of the public organization. Spisak, Grabo, Arvey and van Vugt (2013) found that younger leaders are more eager for change while older leaders are more eager for stability. The organizational climate and leader’s ability to operate in a changing behavior could predict leaders’ affective state. This is in line with a recent study of Kabacoff and Stoffey (2001) which found that younger leaders feel more comfortable in fast-changing environments than older ones.

Another notable discussion point is the expected relationship between leaders’ age and their behavior. Results show that the relationship is not significant (see Models 3 in Table 4), so leader effectiveness seems not determined by the age of a leader (see Model 2 and 3 in Table 5). However, it is important to note; the study used a small leader sample size with an average age of 50.68 years, ranging from 42 to 61 (SD=5.3). This implicates that we used a sample size from a relatively older leader workforce; a restriction of the range. Thus, younger leaders are not observed in this study. Future research is needed to examine the similar study when a wider range of age and lager sample size is used. Besides, in the current study we do not focus on age differences between leaders and followers. Sessa, Kabacoff, Deal and Brown (2007) established that leaders and followers of different generations do value leadership effectiveness differently. Also in today’s organizations, the followers of work teams have different ages and thus the heterogeneity of teams is increasing. Followers have different needs and values. Also Rowold (2011) revealed in his empirical study, conducted in German fire department,
that the relationship between leadership behaviors and performance was moderated by facets of followers’ age heterogeneity. Therefore, future research is needed to pay attention to the differences in leaders’ age and their followers as well.

Moreover, from the research model of this study, in our Hypothesis 4a, we assumed that leaders who provide more individualized consideration and positive attention (behaviors of a transformational style) are more often perceived as effective by their followers. We show that behaviors like individualized consideration and positive attention play a role in determining leader effectiveness but do not appear to play a significant supporting role in influencing leader effectiveness. Nevertheless, existing studies often results that support the positive relationship between transformational leadership behavior and leader effectiveness (e.g., Wilderom & Hoogeboom, 2013). Wilderom and Hoogeboom showed that transformational leadership style is positively related to leader effectiveness. On the other hand, we predict in our Hypothesis 4b that leaders who frequently engage in task monitoring and providing negative feedback, behaviors of transactional style, (during staff meetings) are being rated lower on leader effectiveness by their followers. This assumption is not supported. Nevertheless, evidence for the negative relationship between task-oriented style and leader effectiveness is supported by Wilderom and Hoogeboom (2013). They find a significant relationship between task monitoring and effective leadership. In the context of a staff meeting, followers dislike being task monitored by their leader. One reason the latter of the two assumptions about leadership behavior and leader effectiveness were not supported is the classical augmentation effect. This is in line with recent literature. Hater and Bass (1988) show that transactional leadership behavior (including both task-directing and reward-directing behavior) adds to the effectiveness of a leader with a transformational leadership behavior. Especially in the context of staff meetings, more research is needed to examine the effect of behaviors like task monitoring, individualized consideration and positive attention on leader effectiveness.

Beside our proposed hypotheses, we found a significant relation between leaders’ negative affective state and transformational leadership behavior ($\beta = -.38$, $p < 0.05$). This means that leaders who display more negative emotions show less positive attention and score lower on individualized consideration. This finding is also supported by Joseph et al. (2015) who conducted meta-analyses that revealed a negative relationship between negative affect and transformational leadership. Followers perceived their leaders who express negative emotions as less adopting a transformational leadership style. Therefore, leader’s affective state seems to have an influence on the leader’s actual leadership behavior repertoire.

5.1 Practical implications

This study is advisable for future management training programs. Analyzing precisely video-coded behaviors of leaders in regular staff meeting gives insights into which leadership behaviors are more effective during staff meetings and which are less effective. Leaders are likely to develop themselves when they become more aware of the kind of behaviors they display in different work settings. Therefore, leader development programs could be enriched by such video-based research results.

The results of this study suggest that negative affective state can lead to less expressions of transformational and relational oriented leadership behavior, which in turn (based on existing research) (Bass, 1990; Bass & Bass, 2008), leads to less effective leaders. Therefore, leaders training should include greater attention on becoming aware of leader’s emotions and affective state. Also leader trainings should take into account the emotional needs of the leader. Transparency of leader’s emotional needs should therefore be directed. Leaders’ experience of scariness, nervousness and irritability should be avoided. Moreover, as for instance Elfenbein (2007) noted, affect in work environments is a critical component of attitudes and behaviors in the workplace. More relevant for leadership studies, affect in the workplace has also highlighted the importance of emotions, mood and affect in leadership processes (Ashkanasy & Tse, 2000). Thereby, affective state should become an important part of coaching meetings between leader and professionals. It is crucial to focus on the social interactions between followers and leaders in daily life settings, such as regular staff meetings. In Sociology, this method is referred to as ‘ethnomethodology’. This perspective, founded by Garfinkel, focuses on how people apply implicit rules in social conversations (Harritage, 1984).

5.2 Strengths, limitation and future research directions

The strength of this research is that we used a mix of objective and subjective methods and data sources (video based coding and surveys). The use of different data sources and methods reduced common method bias. Objective video-based coding helps to observe leader behavior during regular staff meetings. Besides that, subjective surveys help to understand follower perceptions about the leader effectiveness. Despite the strengths of this current study, there are also various limitations. First, the survey and observational data were collected at one point in time, thus the current study lacks insights to the incremental developmental processes, and the cross-sectional nature of the current study makes it difficult to discover the true direction of causality between the variables used. Therefore, future research may adopt a longitudinal study design, which gets insights in the process of causality of variables used.

Second, the sample size is very small. In current study we focus on 29 observed leaders. Only one organization is studied. Future study may adopt more organizations, resulting in bigger sample size of leaders and followers that strengthen the results.

Third, leaders, followers and coders in this study were all Dutch, therefore the generalizability of this study limited to the Netherlands. The observed behaviors showed in the videos can be analyzed differently in other countries in the world, due to cultural differences between countries. Therefore, it would be interesting to examine whether our findings are replicable in various other cultures.

Fourth, this study may suffer from social-desirability bias. Video-recording of meetings could influence the behaviors of the leaders and followers. We are aware of it. Therefore, we asked, directly after the meeting, each of the followers to rate the extent to which the leader behaved as he or she normally did without the cameras. The response categories ranged from 1 (not representative) to 7 (highly representative). The results show that the amount of leader reactivity during the video observation was limited.

Further research should focus on larger leader and follower samples. The video coding-observation method has the potential of being applied in a wider context, not only during regular staff meetings. Thus, video-based field studies can contribute to existing leadership literature and gives a clear view of effective leadership behavior. As previously mentioned, future research should concentrate not only on the age of leaders but also on followers’ age. Groups with age
heterogeneity (inclusive leader’s age) mediate between the relationship of leader behavior and leader or group performance (Rowold, 2011)

6. CONCLUSION
Present work highlights the role of leaders’ age in leadership processes such as leaders’ affective state, leadership behavior and leader effectiveness. Although our work does not establish a significant link between leaders’ age and leadership outcomes, we can still conclude that older leaders are not better or worse than younger leaders in achieving effective leadership. Furthermore, the significant negative relationship in the current study between leaders’ negative affect and transformational leadership behavior contributes to the existing leadership literature, because this leadership literature tend to focus more on the relationship between positive affect and transformational leadership behavior while ignoring the relationship between negative affect and leadership and followers behavior (Gooty, Connelly, Griffith & Gupta 2010). All in all, the recent study presents a fundamental basis for further research on how, why and when leaders’ (and followers!) age has consequences for their emotions, behaviors and effectiveness in various organizational situations.

7. ACKNOWLEDGMENT
I am very grateful to my supervisor Drs. A.M.G.M. Hoogeboom for all the necessary, helpful and clear feedback she gave to me. Her guidance helped me to accomplish my thesis. I am also grateful to my 2nd supervisor Prof. Dr. C.P.M. Wilderom for her assistance in the writing of this paper.

8. REFERENCES


9. APPENDIX

Research model

Figure 1: Research model

Hypotheses model

Figure 2: Hypotheses model

<table>
<thead>
<tr>
<th>Hypotheses 1a and 1b</th>
<th>X → Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypotheses 2a and 2b</td>
<td></td>
</tr>
<tr>
<td>Hypotheses 3a and 3b</td>
<td>X → Y</td>
</tr>
<tr>
<td>Hypotheses 4a and 4b</td>
<td>X → Y</td>
</tr>
</tbody>
</table>

Note: X is the independent variable; Y is the independent variable

Figure 3: Three-path mediation model

| Three-path mediation model | X → M1 → M2 → Y |

Note: X is an independent variable; Y is a dependent variable; M1 and M2 are the mediators
<table>
<thead>
<tr>
<th>Behavior category</th>
<th>Behavior</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-defending</td>
<td>1</td>
<td>Showing disinterest</td>
<td>Not showing any interest, not taking problems seriously, wanting to get rid problems and conflicts</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Defending one’s own position</td>
<td>Protecting the own opinion or ideas, emphasizing the own importance</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Providing negative feedback</td>
<td>Criticizing</td>
</tr>
<tr>
<td>Steering</td>
<td>4</td>
<td>Disagreeing</td>
<td>Contradicting ideas, opposing team members</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Agreeing</td>
<td>Saying that someone is right, liking an idea</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Directing</td>
<td>Telling others what (not) to do, dividing tasks</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Verifying</td>
<td>Getting back to previously made agreements/ visions/ norms</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Structuring the conversation</td>
<td>Giving structure by telling the agenda, start/end time etc.</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Informing</td>
<td>Giving factual information</td>
</tr>
<tr>
<td>Supporting</td>
<td>10</td>
<td>Visioning</td>
<td>Giving the own opinion</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Intellectual stimulation</td>
<td>Asking for ideas, inviting people to think along or come up with own ideas, brainstorming</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Individualized consideration</td>
<td>Rewarding, complimenting, encouraging, being friendly, showing empathy</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Humor</td>
<td>Making people laugh, saying something with a funny meaning</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Positive feedback</td>
<td>Rewarding, complimenting</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Personally informing</td>
<td>Giving non-factual, but private information</td>
</tr>
</tbody>
</table>