



Universiteit  
Leiden  
The Netherlands

## **Leading towards inclusiveness: developing a measurement instrument for inclusive leadership**

Ashikali, T.S.

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## **Leading Towards Inclusiveness:**

### **Developing a Measurement Instrument for Inclusive Leadership**

#### **ABSTRACT**

To date there is no clear understanding of which leadership behaviours are needed for developing an inclusive workplace. This paper conceptualizes inclusive leadership and develops this into a comprehensive measurement scale that can be used in quantitative studies to empirically assess the link between inclusive leadership and organizational inclusiveness. Inclusive leadership involves stimulating cognitive processes that enable individuals to express their uniqueness while, at the same time, support affective processes that foster a shared team identity and individuals' feelings of belongingness. Measurement items are developed from a theoretical framework and validated through cognitive interviews with different groups of public employees and experts on survey research. The survey was distributed among employees of four Dutch public organizations (N= 304). Exploratory and confirmatory factor analyses show that inclusive leadership indeed consists of two factors, namely a cognitive and affective dimension. Inclusive leadership involves encouraging diverse team members to value, exchange, discuss and learn from their different backgrounds, perspectives and ideas. The measurement instrument can be used to examine how inclusive leadership can contribute to a climate of inclusion, and affect team outcomes. Limitations of this study are related to the cross-sectional data that was used for both explorative and confirmative validity tests. Future research to test linkages between inclusive leadership, inclusive climate, and performance is proposed.

**Keywords:**

Inclusive leadership; team diversity processes; public sector organizations; scale development; scale validation

## INTRODUCTION

Due to societal developments, public organizations increasingly become more ethnic culturally diverse. As a result, public managers are more and more placed with the responsibility of managing workforce diversity and to foster inclusiveness in the organization (Ashikali & Groeneveld, 2015a; Ritz & Alfes, 2017). This task is not that simple to accomplish though. Some of the difficulties leaders may face in managing team diversity includes the aspects of preventing intergroup bias and the exclusion of (perceived) dissimilar group members, which result from categorization processes when differences among team members are amplified (Guillaume et al., 2014; Guillaume, Dawson, Otaye-Ebede, Woods, & West, 2017; Van Knippenberg et al., 2004; Williams & O'Reilly III, 1998). It also involves how to ensure that everyone, taking into account his or her differences, has the opportunity to contribute to the team. Although these processes may be relevant for any diversity attribute, ethnic-culturally heterogeneous teams specifically seem to experience more conflict and less cooperation and cohesion (Meeussen, Otten, & Phalet, 2014), suggesting that effective leadership in such teams is required.

Inclusive leadership has therefore gained the interest of scholars (Hirak, Peng, Carmeli, & Schaubroeck, 2012; Randel et al., 2017). However, to date, a comprehensive conceptualization and operationalization of inclusive leadership is lacking within academic literature (Randel et al., 2017). The concept of leader inclusiveness has been addressed by Nembhard and Edmondson (2006) who defined it as a leader's behaviour that invites and appreciates contributions that would otherwise not be heard. Others have addressed leader inclusiveness in terms of the quality of leader-member exchanges (Nishii & Mayer, 2009) or have used transformational leadership as a possible indicator of inclusive behaviour aimed at managing team diversity processes (Ashikali & Groeneveld, 2015a; Kearney & Gebert, 2009). Although transformational leadership is effective in developing a collective social

identity for preventing intergroup bias, this in particular could result in group members' downplaying their unique identities causing an imbalance of belongingness and uniqueness (Randel et al., 2017).

Although these studies underline the importance of leadership, little is offered as to how leaders can actually manage those processes that enable individuals to feel they belong to the group while, at the same time, that their unique contributions are valued and appreciated (Randel et al., 2017; Shore et al., 2011). Extensive conceptualizations and measurements to assess specific leadership behaviours that identify the individual in relation to the team are, perhaps surprisingly, limited available (Randel et al., 2017). In response to this gap, a theoretical framework is constructed that distinguishes leadership behaviour that supports an individual's need for uniqueness and belongingness (Brewer, 1991; Shore et al., 2011). This is done through stimulating cognitive information/decision-making processes while, at the same time, minimizing the possible negative affective categorization processes (Van Knippenberg, De Dreu and Homan, 2004; Van Knippenberg and Van Ginkel, 2010) that might hinder an individual's feelings of belongingness (Brewer, 1991; Shore *et al.*, 2011).

This study contributes to the field of leadership, inclusion, and work group diversity by conceptualizing inclusive leadership involving two key cognitive and affective dimensions and developing an appropriate measurement scale. Several steps are involved in developing this measure, which is then tested and validated using data on employees working in Dutch public sector organizations (N= 304) (DeVellis, 2003; Hinkin, 1998). The measurement instrument can be used to examine how leadership can contribute to inclusiveness in teams, and in so doing affect team outcomes. Furthermore, the scale provides input for leadership development programmes that can be used to cultivate the leadership skills that are needed for managing team diversity and fostering inclusiveness in organizations. This in particular is relevant since inclusiveness enables organizations to serve diverse needs of their employees,

as well as making use of their diverse strengths in response to complex issues that arise from contemporary society (Ashikali & Groeneveld, 2015b; Dwertmann, Nishii, & Van Knippenberg, 2016; Mor Barak et al., 2016; Nishii, 2013; Pless & Maak, 2004; Syed & Ozbilgin, 2015).

The next part of this article reviews the literature and outlines the conceptualization of inclusive leadership. Following this, the data and methods are discussed, followed by a results section and then a discussion and conclusions.

## **LITERATURE REVIEW**

### **Inclusive leadership**

Leaders are crucial actors in managing the organizational processes required to create a climate of inclusion. They are seen as agents of the organization, communicating its norms and values, who shape the organizational culture (Bowen & Ostroff, 2004; Purcell & Hutchinson, 2007; Wright & Nishii, 2012). As such, their leadership is an essential factor when studying inclusiveness, which enables employees to have the opportunity to have unique social identities, while, at the same time, ensuring employees have the feeling that they belong and thus are treated as insiders (Mor Barak et al., 2016; Nishii, 2013; Shore et al., 2011).

Inclusive leadership has been identified in the literature as being able to foster inclusiveness. Nembhard and Edmonson (2006), for instance, discuss leader inclusiveness in terms of inviting and appreciating those voices that otherwise would not be heard. They discussed status differences and a safety climate as aspects that could hinder or enable different voices to be heard. Although this conceptualization captures leadership that encourages employees to voice and value different ideas, it is not clear whether and how these ideas are utilized in their team. Furthermore, it does not address the concrete behaviour

that is necessary to create the level playing field that will enable individuals to voice diverse perspectives, ideas, skills, and expertise (Randel et al., 2017). It rather focuses on how a leader himself or herself would value and utilize employee differences in the context of teams that consist of team members that consist of different (medical) professionals.

A more elaborate discussion of inclusive leadership is therefore required using two theoretical frameworks to distinguish between the cognitive and affective processes involved. Shore et al. (2011) discuss Optimal Distinctiveness Theory as a way to explain individuals' feelings of inclusion. This framework refers to two needs that individuals seek to balance: the need for uniqueness and individuality, as well as the need for validation and similarity with others to feel a sense of belongingness in the organization. Both aspects are important for inclusiveness in an organizational context.

The above-mentioned aspects tie into the cognitive and affective processes that have been elaborated upon in the Categorization-Elaboration Model (CEM) (Van Knippenberg et al., 2004; Van Knippenberg & Schippers, 2007; Van Knippenberg & Van Ginkel, 2010). The CEM integrates an information elaboration and decision-making perspective with a social categorization perspective on diversity. On the one hand, elaborating task-related information, knowledge, and perspectives could enhance a group's creativity, innovation, and decision quality. As such, exchanging, discussing, and utilizing differences in a diverse group reflects cognitive processes. Affective processes, on the other hand, refer to categorization processes that result from similarities and differences, and lead to distinguishing between in-group and out-group members (or intergroup bias: "us and them"). These aspects need to be appropriately managed if one is to enhance the positive and minimize the negative processes of diversity (Van Knippenberg & Van Ginkel, 2010).

Since, affective processes could disrupt cognitive processes (Van Knippenberg et al., 2004), and uniqueness and belongingness need to be balanced, inclusive leadership should be

directed at simultaneously managing these processes. Inclusive leadership can thus be defined as leadership that stimulates the exchange, discussion and utilization of employees' diverse features, as well as supporting the full participation of all employees in order to satisfy needs' of individuation and belongingness. These objectives are further discussed in the next paragraph.

### **Objectives of inclusive leadership**

*Cognitive diversity processes.* The information/decision-making perspective can be applied to make use of an individual's uniqueness. According to this perspective, diversity is positively related to the elaboration of task-relevant information and perspectives, and thus to the exchange of knowledge, and the discussion and integration of ideas, insights, viewpoints, etc. (Van Knippenberg et al., 2004). The underlying assumption is that elaborating information will result in in-group team performance in forms such as creativity, innovation, and improved decision quality. Similarly, the integration and learning perspective argues that team members should be supported in learning from differences since these could be the source of creative and innovative solutions to complex tasks, and thus should be integrated into work tasks and processes (Ely & Thomas, 2001).

Key to the above processes is exchanging the knowledge, perspectives, ideas, and experience that diverse individuals may bring, and learning from this diversity. However, it is not a given that individuals and team members are able or willing to engage in this exchange and learning behaviour. According to the Categorization-Elaboration Model, information will only be shared if one has the motivation and ability to do so (Van Knippenberg & Van Ginkel, 2010). This indicates that one has first to be motivated and then facilitated to make use of this diversity.

Leaders, in this regard, perform an important role in motivating and facilitating their followers to engage in exchanging, as well as in learning behaviour. This involves leaders creating an environment in which opportunities are developed for individuals to establish diverse viewpoints, such as when it comes to problem solving. Leaders, in turn, need to encourage the exchange of these diverse viewpoints among employees, and to stimulate followers to discuss these differences. The next step would be for leaders to adopt behaviour that then stimulates the utilization of these differences to enhance creativity, innovation, and problem solving. In doing so, leaders manage the cognitive processes that are needed to create value from diversity and ensure that individuals have the opportunity to express their uniqueness (Dwertmann et al., 2016; Shore et al., 2011; Van Knippenberg & Van Ginkel, 2010).

*Affective diversity processes.* As explained earlier, besides having the opportunity to express differences, individuals also need to feel there is a safe environment. In such an environment, individuals will feel safe to voice differences, and group members will be stimulated to learn from these differences (Chrobot-Mason et al., 2014; Nembhard & Edmondson, 2006). To ensure a safe climate, leaders need to create an environment in which individuals feel they belong; in other words, that they are treated as insiders. In order to achieve this, leaders need to manage possible negative diversity processes that could reduce feelings of safety, and possibly threaten cognitive processes.

Social identities involve an individual's self-concept as derived from their membership of social groups. Salient differences among group members' social identities may lead to friction and conflict due to social categorization processes that result in intergroup biases distinguishing in-group from out-group members ("us and them") (Van Knippenberg et al., 2004) and the perception of differences in status or social dominance (Jansen, Otten, & Van der Zee, 2015; Leslie, Mayer, & Kravitz, 2014). At the same time,

optimal distinctiveness theory posits that individuals have the need for validation and similarity with others, and that this creates a sense of belongingness through identifying with, and seeking acceptance within, the group or organization (Brewer, 1991; Shore et al., 2011). Belongingness is, in this regard, defined as the need to form and maintain strong and stable interpersonal relationships that make an individual feel like an insider (Jansen, Otten, Van der Zee, & Jans, 2014; Shore et al., 2011). Overall, it would appear that individuals have a need for differentiation, but that being perceived as different could have negative consequences in terms of social categorization.

In order to prevent followers feeling they are outsiders, leaders need an awareness of these processes so that they can prevent the negative stereotyping of others that may induce categorization processes (Van Knippenberg & Van Ginkel, 2010). Research has shown that visible differences are most commonly associated with stereotyping and hence these could lead to social categorization (Horwitz & Horwitz, 2007; Joshi & Roh, 2009; Van Knippenberg & Van Ginkel, 2010). Therefore, inclusive leadership should aim to prevent such negative stereotyping, and ensure that everyone can be themselves without this resulting in the negative effects of social categorization, and ensuring everyone is treated as an insider.

On a related issue, inclusive leaders will prevent employees forming subgroups that could exclude others they perceive as different from themselves (Brewer, 1991; Jansen et al., 2014; Shore et al., 2011; Van Knippenberg & Van Ginkel, 2010). If employees categorize each other into subgroups that exclude them from participating, or prevent them having a voice, this could have a negative effect on employees need for differentiation and sense of being treated as an insider. Being perceived as different would then be seen as a negative, which could also impact upon cognitive processes such as the exchanging of different ideas. Related to social categorization, and the impact this could have on cognitive processes, are the views one might have of diversity: does one believe that diversity has value for the work

or organization, or not? (Homan, Greer, Jehn & Koning, 2010; Homan, Van Knippenberg, Van Kleef, & De Dreu, 2007; Jansen et al., 2015; Podsiadlowski, Gröschke, Kogler, Springer & Van der Zee, 2013). These beliefs regarding diversity are presumed to be manageable, and therefore a possible outcome of inclusive leadership. To foster positive diversity beliefs, it is necessary to communicate the value of diversity and its benefits to team members.

Creating a supportive work environment will foster a positive attitude towards diversity and may reduce negative social categorization. This would result in an environment where one can be oneself, and therefore it is important that leaders enhance the strength and positive valence of the bond between individuals and the group (Jansen et al., 2014). In addition, a positive attitude towards diversity will increase one's openness to exchanging perspectives, knowledge, and views that will affect the cognitive processes of diversity. Inclusive leadership thus involves an affective dimension that entails concrete behaviour to support employees' belongingness.

### **Conceptual distinctiveness**

Previous studies have identified transformational leadership as an effective means to manage diversity (Ashikali & Groeneveld, 2015a; Kearney & Gebert, 2009).

Transformational leadership is a leadership style directed at motivating, inspiring, and giving direction to followers in times of change, and is therefore often considered in relation to managing diversity (Ashikali & Groeneveld, 2015a; Kearney & Gebert, 2009). It involves behaviours such as intellectual stimulation, inspirational motivation, and individualized consideration (Bass, Avolio, Jung, & Berson, 2003) that have been positively linked to cognitive and affective diversity processes (Kearney & Gebert, 2009).

Dimensions used to measure transformational leadership could involve managing of cognitive and affective processes. On the one hand, intellectual stimulation involves

managing cognitive processes by stimulating individuals to rethink and reframe problems and to think of new ways to solve problems (Bass et al., 2003). On the other hand, transformational leadership aims to create a collective team spirit or identity, and this can be linked to managing affective processes. Transformational leaders are seen as able to portray a vision that establishes a collective identity, but a downside of this is that individual needs for uniqueness or belongingness may be overlooked (Randel et al., 2017).

Moreover, transformational leadership is essentially directed at instigating change processes in organizations, rather than at managing a diverse workforce. The question can thus be raised as to whether transformational leaders indeed recognize the need to manage both cognitive and affective processes in a way that allows the double-edged sword of diversity to be wielded. Given this uncertainty, the relationship between inclusive leadership and transformational leadership will be investigated in this study to gain a greater understanding of the similarities and distinctiveness of the two constructs.

## **METHODS: SCALE DEVELOPMENT**

### **Initial item generation**

The development and validation of the inclusive leadership scale involved various steps (DeVellis, 2003; Hinkin, 1998). The first step was to generate an initial set of items. The cognitive and affective diversity processes as discussed in the theoretical framework were translated to concrete leadership behaviour that is required to support those processes in a team. Cognitive processes, for instance, require leadership that encourages and stimulates the exchange, discussion and learning of team members' diverse perspectives. Whereas affective processes call for leadership that facilitates and stimulates the full participation of all team

members. Several items, and in multiple forms, were as a result generated to measure both dimensions of inclusive leadership<sup>1</sup>.

Previous leadership studies tend to operationalize leadership behaviour by its intended effects, rather than actual behaviour that links to the concept developed (e.g. Van Knippenberg & Sitkin, 2013). To refine the initial constructed items, these were first discussed with three HRM and leadership scholars with expertise in survey research. Previous research also found empirical, as well as conceptual differences between employees' ratings and leader's self-ratings of leader behaviour (because leaders might have a self-rating bias). As such, these studies argue for capturing employees' perceptions of leadership rather than intended leadership (Avolio, Reichard, Hannah, Walumba, & Chan, 2009; Jacobsen & Andersen, 2015). Items were therefore formulated to capture employees' perceptions of their leaders' inclusive behaviours. This resulted in the initial list of items presented in Table 1.

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### **Cognitive interviews: item refinement**

The items in Table 1 were then pre-tested in cognitive interviews. The interview design enabled an in-depth insight into the processes through which respondents try to understand, interpret, and answer survey questions, which gives an indication as to whether the intentions of the researcher have been met (Beatty & Willis, 2007; Presser et al., 2004). Using verbal probing and thinking-aloud sessions, respondents were asked to reflect on the list of items. Probes included phrases such as: 'What are you thinking?' and 'How did you arrive at that answer?'. By doing so, it was possible to clearly map the different components and to test the appropriateness of the conceptualizations (Beatty & Willis, 2007).

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<sup>1</sup> Given the limited space, only those items included in the survey are detailed in the paper; the initial longer list is available from the author.

In total, eleven respondents participated in these interviews. The respondents worked for a range of Dutch public organizations, including two ministries, a municipality, and a university. Four of the respondents had supervisory responsibilities and therefore were able to comment on the items based on their experiences in managing their team. From an employee perspective, respondents reflected how they perceived the role of leadership in terms of managing the team's cognitive and affective processes. Of the respondents, four had a non-native background, of whom one was a native English speaker, their ages ranged from 30 and 60, and five were men.

The cognitive interviews had an average duration of one hour. If respondent felt an item had to be changed, they made suggestions upon how items could be improved. During the interview respondents' propositions for change and their interpretations were noted and reflected upon after the interview was finished. The results of the cognitive interviews are presented in the next section, which also explains to what extent items were modified based on the interviews.

### **Results of cognitive interviews: cognitive processes**

For the cognitive dimension, several items had been developed concerning stimulating and supporting the expression of differences, utilizing these differences in problem-solving, creativity, and innovation, and integrating these differences in work tasks. Some of the statements referred to stimulating and some to supporting activities. Most of the respondents grasped a difference between leaders stimulating and supporting activities. One first has to be motivated or triggered into sharing, using and learning from team members' differences. And secondly, one could be facilitated to actually acting upon those attitudes and behaviours. This links back to the conditions that enable information elaboration as indicated in the Categorization-Elaboration Model (i.e. motivation and ability) (Van Knippenberg et al.,

2004). However, some had to re-read the statements to capture the intended differences between the two. To prevent later difficulties in understanding the distinction, the supporting term was replaced by “the supervisor encourages me (or ensures that) [...]”, while motivating was referred to as “the supervisor stimulates me to [...]”.

A central focus within the cognitive dimension is encouraging employees to share and utilize a range of perspectives in their work. When reacting to items that refer to these leadership behaviours, respondents asked whether it was indeed a supervisor’s role to encourage these activities. Since all of the respondents saw it as part of their job to seek different perspectives and ideas, they questioned whether this was a supervisor’s responsibility or that of all employees. However, when asked whether this would apply in every situation, respondents emphasized that supervisors should ensure that everyone has the opportunity to be heard, especially in circumstances where their voice might go unnoticed. The statements that refer to the encouragement of the discussion and exchange of diverse viewpoints and perspectives were therefore retained in the measurement.

Working in a Dutch public organization can involve implementing policies and programs, established by a coalition cabinet of various political parties, that do not necessarily represent one’s own political preferences. In such situations, sharing your own political ideology may not be seen as desirable. As such, in practice, sharing and using different perspectives is subject to, often informal, rules and regulations that apply in a given organization. Given this, where items were referring to differences, respondents felt it should be clear what sort of differences were meant. Differences, they argued, could refer to a number of aspects both visible, such as demographic characteristics, as well as less visible, such as one’s beliefs, norms, and values. To prevent respondents interpreting a question in different ways, the statements were adapted to ensure that respondents knew what differences

were being addressed such as perspectives and ideas that result from different ethnic-cultural backgrounds.

### **Results of cognitive interviews: affective processes**

Several items (see Table 1) were developed for measuring the affective dimension of leadership including items on creating strong and stable interpersonal relationships, on being treated as a member of the group, on having a voice, and on participating in the team. Initially, the respondents felt it was the individual's, and not the leader's, responsibility that they participated and voiced their ideas. The respondents did not expect their supervisor to support them in participating actively and in developing interpersonal relationships with colleagues.

However, when probed whether this would always be the case, the respondents replied that in some circumstances the supervisor could step in. For example, if someone was shy or not being included, the supervisor could ask that person directly if they have something to contribute. A supervisor could also talk to team members if they were thought to be excluding a colleague due to intergroup bias. These considerations indicate that such processes might prevail in the team, which needs leadership to act upon. Therefore, items that refer to the supervisor stimulating the participation and ensuring the opportunity to have a voice were retained in the measurement scale, while the item on developing interpersonal relationships with colleagues was removed.

The item on preventing employees thinking in stereotypes was rephrased to better capture the supervisor trying to prevent employees so doing, rather than an actual outcome of employees being prevented from so thinking. This change was made because our respondents observed that a situation could arise despite a supervisor having the possibility to prevent it.

Furthermore, the concept of ‘team’ raised some questions. Most of the respondents worked in various collaborations depending on the topic involved; for example, a certain policy domain might only involve their department, or it might cut across departments throughout the organization. It was therefore felt necessary to provide a brief description in which a team refers to a group or cluster of colleagues with whom the respondent works on a daily basis and who have a shared task or goal that they, as a team, have to complete. This explanation was given in the introduction text of the survey. The various suggestions led to revising the statements on affective behaviour aimed at managing affective processes resulting in the revised set provided in Table 2.

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## **METHODS: SCALE VALIDATION**

### **Data**

Dutch public sector organizations have a long history of implementing diversity policies to improve the representation of minorities (Groeneveld & Verbeek, 2012; Rijksoverheid, 2016), and therefore provided a desirable context to survey employees on diversity and inclusive leadership. The Dutch public sector is divided into different administrative tiers of the central government, the provinces, the municipalities, the judiciary, and the water authorities, as well as an educational and science sector and a safety sector (defence and police force) (Ministry of the Interior and Kingdom Relations, 2016). To test the developed measurement scale, data were collected among employees of two ministries (central government) and two municipalities (local government). Of these sub-sectors central government and the municipalities have the highest representation of ethnic-cultural minorities, 18 and 16 percent respectively (in 2014) and provided therefore the necessary context for examining inclusive leadership.

Invitations to the online survey were sent to approximately 556 employees that were selected through the team supervisors and HR departments of each organization. In total, 304 employees completed the questionnaire, a response rate of 54.7%. Of these respondents, 32.8% had non-native Dutch background<sup>2</sup>. 40% were female, and the mean age was 43. On average, the respondents had worked for 15 years in their respective organization, although there was considerable variation ( $SD = 10.44$ ). Of the respondents, 58% worked in one of the two ministries.

Respondents were asked to what extent they agreed with the statements presented in Table 2, with possible answers ranging from strongly disagree (1) to strongly agree (5). To test the factor structure and potentially reduce the number of items, the total sample of 304 team members was split into two roughly equal random samples. An independent samples T-test was carried out to check that the two samples were similar, and this failed to identify any significant differences between the descriptive variables of each sample as shown in Table 3.

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The first subsample was used in an explorative factor analysis (EFA) (carried out in SPSS 20) in which the 13 items in Table 2 were examined and their dimensions/factors were explored. The second subsample was used in a confirmatory factor analysis (CFA) to validate (using STATA 13) the factor structure that resulted from the EFA analysis.

### **Exploratory factor analysis**

Initially, a principal component analysis (PCA), with oblique rotation, was conducted on the 13 items. This is a favoured method when factors are expected to be correlated (Field,

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<sup>2</sup> The term non-native Dutch background refers to people who were born in a country other than the Netherlands and/or having one or both parents born abroad.

2009). The Kaiser-Meyer-Olkin measure verified the sampling adequacy with a KMO = .93, and all individual items having values  $>.90$ , well above the acceptable limit of  $.50$ .

Furthermore, a Bartlett's test of Sphericity indicated that correlations between items were sufficiently large ( $\chi^2_{(78)} = 1688.71, p < .001$ ). This analysis resulted in a two-factor solution of which the first factor explained 65% of the variance and the second 8.3%, a total explained variance of 73.3%. All the inter-item correlations were  $>.40$  and  $< .90$ , which shows that each item assesses the same content. Table 4 shows the factor loadings after rotation, with the pattern matrix showing the factor loadings of each respective item. The structure matrix shows the product of the pattern matrix and the correlation coefficients between factors.

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In the next step, a reliability analysis was performed for the two factors. First, items 1 to 6, measuring inclusive leadership aimed at managing cognitive processes, returned a Cronbach's alpha ( $\alpha$ ) =  $.94$ , indicating high reliability. Items 7 to 13 measuring inclusive leadership aimed at managing affective processes returned a Cronbach's of  $\alpha = .93$ , similarly indicating high reliability of the factors.

### **Confirmatory factor analysis**

To examine the stability of the factor structure obtained from the exploratory factor analysis, a confirmatory factor analysis was performed to evaluate the fit of the measurement model. To estimate the fit, the following indices were used: the conventional chi-square test (CMIN), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Root Mean Squared Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR). A model is assumed to be reasonably well fitting when CFI and TLI are  $> .95$  and RMSEA is  $< .06$  and SRMR  $< .05$  (Byrne, 2010; Hu & Bentler, 1999). To check that a two-factor model is

an acceptable fit, and a better fit than a one-factor model, goodness of fit statistics were compared. As Table 5 shows, while the two-factor model (M1) showed an improved fit over the one-factor model (M0), the fit was still unsatisfactory, as the CFA statistics did not meet the thresholds of acceptability outlined above.

Therefore, steps were taken to improve the model and its fit with the data. Each step in improving the baseline model (M1) is explained below, and the revised fit statistics are again shown in Table 5. First, we observed that the disturbance variances of items 3 and 4 (see Table 4) were correlated. This correlation indicates that items 3 and 4 have common unexplained variance that might be caused by inadequately formulated survey questions, or due to respondents' inability to answer to the asked questions (Byrne, 2010). However, theoretically, both items relate to social categorization processes leading to the exclusion of others or the formation of groups based on implicit biases (Van Knippenberg et al., 2004). We therefore added a correlation between the two disturbance variances. Nevertheless, the resulting model (M2) still lacked a satisfactory fit. Next, in model M3, a correlation between disturbance variances of items 12 and 13 was added. Both items refer to utilizing the cultural backgrounds of colleagues as a resource and therefore theoretically seemed justified. This improved the model slightly, but not yet to a satisfactory level. Then, in model M4, a correlation was added among the disturbance variances of items 11 and 13. These items seemed to have unexplained variance in common that might be due to the fact both items relate to the opportunity to be oneself. This added correlation, however, still failed to deliver a satisfactory fit. Finally, in model M5, a correlation between disturbance variances of items 2 and 5 was added, that have unexplained variance in common since both involve the elaboration and utilization of differences. This final adjustment resulted in a model that satisfied the criteria for a satisfactory fit.

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Insert Table 5 about here

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The main results from the final model can be found in Table 6, and illustrated in Appendix A, Figure A1, including the factor loadings, the correlation between the two factors, as well as the added correlations among the disturbance variances.

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### Construct validity tests

**Discriminant validity.** As a validity test for the two-factor model, a three-factor CFA was then calculated for the total sample for the two dimensions of inclusive leadership plus transformational leadership using an adjusted 12 items scale (see Appendix A, Figure A2) that had been used in a previous study (Ashikali & Groeneveld, 2015a). This model had the following goodness of fit statistics:  $\chi^2_{(272)} = 904.504$ ,  $p = .000$ , RMSEA = .097, CFI = .887, TLI = .875 and SRMR = .045 indicating an unacceptable fit. This model suggested strong correlations between the cognitive dimension of leadership and transformational leadership (.85), and between affective behaviour and transformational leadership (.87). However, a one-factor model had an even worse fit:  $\chi^2_{(275)} = 1291.269$ ,  $p = .000$ , RMSEA = .122, CFI = .818, TLI = .802 and SRMR = .056. Despite the high correlation between transformational leadership and the two inclusive leadership dimensions, the three-factor model better fitted the data than a one-factor model. Moreover, the modification indices indicate that the model fit could only be improved by adding correlations among disturbance variances of items the corresponding factor. The three-factor model is illustrated in Appendix A, Figure A2.

In a next step we tested for discriminant validity of the two-factor inclusive leadership model, with the cognitive and affective dimensions, against a factor for leader inclusiveness. The model statistics are presented graphically in Appendix A, Figure A3. Like the previous

test, the two measures were strongly correlated. However, a three-factor model indicated a better fit in support of the two dimensions of inclusive leadership. Rather than capturing intended effects of leadership, the measurement scale developed, identify concrete leadership behaviour that enables the full participation of all team members and stimulates them to learn from and utilize each other's strengths. The items measuring both a cognitive and affective dimension of inclusive leadership thus shows the specific behaviours leaders can employ to stimulate and facilitate cognitive and affective processes in the team.

**Criterion validity.** To examine the effect of inclusive leadership on a climate of inclusion, a model was tested in which inclusive leadership was represented by the two cognitive and affective dimensions, and inclusive climate measured through employees' perceptions of 1) equal employment practices, 2) integration of differences in work practices, and 3) integration of differences in decision making (Nishii, 2013). This model had the following fit:  $\chi^2_{(98)} = 260.48$ ,  $p = .000$ , RMSEA = .082, CFI = .951, TLI = .940, SRMR = .039, CD = .985. Further, both leadership dimensions were significantly associated with employees' perceptions of inclusiveness. In other words, the more that employees perceive their leader as implementing inclusive leadership, the more they perceive the climate as being inclusive of diversity. These results can be found in Appendix A, Figure A4.

## DISCUSSION

This article has contributed to existing studies on leadership, inclusion, and diversity by developing a comprehensive conceptualization of inclusive leadership and translating this into a quantitative measurement instrument. A clear conceptualization of inclusive leadership was to date missing in the literature (Randel et al., 2017). Previous studies have emphasized the importance of leadership in managing diversity processes (Ashikali & Groeneveld, 2015a;

Kearney & Gebert, 2009; Mitchell et al., 2015), but have not specified leadership behaviour that is particularly aimed at addressing both cognitive and affective processes and, in so doing, considers the individual employee in relation to their team.

This study defined inclusive leadership as a set of behaviours that on the one hand, seek to stimulate team members to adopt learning behaviours in regard to team diversity and to utilize team diversity, and on the other hand facilitate the participation of all team members. Through managing both cognitive and affective team processes, inclusive leadership supports an individual's need for uniqueness (Brewer, 1991; Randel et al., 2017; Shore et al., 2011) while, at the same time, facilitate individuals' needs for belongingness in the team (Brewer, 1991; Shore et al., 2011). In so doing, this study responded to a recent call in the literature to develop a robust measurement scale of inclusive leadership that can be used in empirical studies (Randel et al., 2017).

The affective dimension involves leadership that prevents and reduces the consequences of categorization processes that could result in intergroup bias and the exclusion of dissimilar others. This is done by actively encouraging all team members to participate. Further, by communicating the importance of diversity for the team, affective leadership creates an environment in which individuals feel safe to voice differing opinions, ideas, and perspectives. Through the cognitive dimension, inclusive leadership stimulates and encourages team members to exchange and utilize different views, ideas, and expertise with members of their team. This also involves learning from the different cultural backgrounds of team members and integrating this knowledge in one's work.

Of the two leadership dimensions considered, affective leadership was more strongly related to an inclusive climate than the cognitive dimension. This suggests that, rather than focusing only on the exchange, discussion, and utilization of differences, it is particularly important to prevent negative outcomes stemming from social categorization. It indicates that

managing team diversity does not only involves a business case strategy aimed at the utilization of diversity, but involves creating an inclusive work environment in a socially responsible manner as well (Syed & Ozbilgin, 2015). By distinguishing between cognitive and affective behaviours we have gained a more nuanced understanding of inclusive leadership that considers both individual needs for uniqueness and belongingness, as well as team processes that might hinder or support valuing team diversity.

### **Limitations**

Notwithstanding the findings of this study, there are some notes of caution. First, due to time constraints and limited access to respondents, it was only possible to administer a single survey. This survey therefore had to contain both the items needed for scale development as well as measures for the constructs needed to determine discriminant and criterion validity. The results of this study could be affected by common method bias explaining the high correlations found in the confirmatory factor analyses (Podsakoff et al., 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). Nevertheless, the tested models were in support of inclusive leadership being a distinct construct consisting of two dimensions. To further validate the inclusive measurement scale, future studies could use a longitudinal design in which outcome variables are measured at different times (Favero & Bullock, 2015). In this way, independent and dependent variables can be measured separately, preventing respondents applying some rationale in answering questions in a single survey.

That said, another point for reflection is the role of a formal leader (i.e. supervisor). In this study leadership was attributed to team leaders being responsible for managing team diversity processes. However, one may question whether a formal leader is always responsible for team diversity processes on the work floor, particularly in the context of self-managed teams. In such teams, team members are responsible for planning and coordinating

their own tasks and goals, and there is no manager responsible for managing team work (Carson, Tesluk, & Marrone, 2007; Hogg, Van Knippenberg, & Rast III, 2012; Solansky, 2008). In the cognitive interviews, some respondents also thought that working with colleagues of different backgrounds and with different skills, experience, etc. was part of one's professionalism, and thus an employee's own responsibility. The fact that this view was repeatedly raised may be due to characteristics of our interviewees: they had worked for several years in their organization and their jobs required them to seek collaborations with others, including through interest groups with others outside the organization. To further examine the applicability of the developed inclusive leadership scale future research could therefore study a wider range of teams to examine its relation to team diversity and team outcomes.

## CONCLUSIONS

To conclude, this research has made a useful contribution to the study of leadership and inclusion. It provides a comprehensive conceptualization of inclusive leadership, and developed this into a validated measurement scale that to date was lacking in the literature. Different from previous measures that identified inclusive leadership, this study puts forward a two-dimensional inclusive leadership construct. A cognitive behaviour dimension illustrates leadership behaviour that stimulates exchanging, utilizing and learning behaviour of team members in regard to the team's ethnic-cultural diversity. An affective dimension involves leadership behaviour that facilitates the full participation of all team members, by preventing possible negative categorizations and inviting all team members to contribute. Through managing these cognitive and affective processes in the team, inclusive leadership enables individuals' needs for distinctiveness and belongingness. The measurement scale developed can be used in future research to further examine the relation between inclusive leadership and inclusiveness in teams. Public managers may use the scale as a tool to inform leadership

development programmes to address leadership behaviour that actually considers team processes and what is required to foster inclusiveness.

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**TABLES AND FIGURES**

**TABLE 1**

**Items prior to cognitive interviews**

<b>Cognitive processes</b>
<i>“my supervisor [...]”</i>
1. Stimulates me to express diverse viewpoints even if these are not standard
2. Stimulates me to exchange different ideas with colleagues
3. Ensures I can exchange different perspectives with colleagues
4. Stimulates me to use colleagues’ diverse backgrounds, perspectives, experiences, and skills for solving problems
5. Supports me in using team members’ diverse backgrounds, perspectives, experiences, and skills as a source of creativity and innovation
6. Stimulates me to integrate the diverse viewpoints, knowledge, and perspectives of colleagues in my work
7. Supports me in discussing diverse viewpoints and perspectives on problem-solving
<b>Affective processes</b>
<i>“my supervisor [...]”</i>
1. Stimulates me to develop strong and stable interpersonal relationships with colleagues
2. Stimulates me to actively participate in the team
3. Ensures I am treated as an equal member of the team
4. Prevents me from thinking negative stereotypes of other colleagues
5. Prevents me forming subgroups that could exclude other colleagues
6. Enables me to be myself in the team
7. Communicates the benefits of diversity for the team
8. Ensures I have the opportunity to have a voice

**TABLE 2**

**Inclusive leadership**

<b>Cognitive dimension</b>
<i>“my supervisor [...]”</i>
1. Encourages me to discuss diverse viewpoints and perspectives on problem-solving with colleagues
2. Ensures I have the opportunity to express diverse viewpoints
3. Stimulates me to exchange different ideas with colleagues
4. Encourages me to use colleagues’ diverse ethnic-cultural backgrounds in problem-solving
5. Ensures that I use colleagues’ diverse ethnic-cultural backgrounds as a source for creativity and innovation
6. Stimulates me to learn from colleagues’ ethnic-cultural backgrounds
<b>Affective dimension</b>
<i>“my supervisor [...]”</i>
1. Stimulates me to actively participate in the team
2. Ensures I am treated as an equal member of the team
3. Tries to prevent me from thinking about colleagues in negative stereotypes
4. Tries to prevent employees forming groups that could exclude other colleagues
5. Ensures I have the opportunity to be myself in the team
6. Communicates to employees the benefits of ethnic-cultural diversity in the team
7. Ensures I have the opportunity to have a voice in the team

**TABLE 3**  
**Descriptive statistics for total and random samples**

Variable	Total sample	EFA sample	CFA sample
Ethnic origin (0 = native Dutch, 1 = non-native Dutch)	.328 (.470)	.359 (.482)	.297 (.457)
Gender (0 = male, 1 = female)	.40	.41	.38
Age	43.8 (10.812)	43.38 (10.655)	44.20 (10.989)
Educational level	4.68 (1.299)	4.64 (1.324)	4.71 (1.275)
Organizational tenure (in years)	15.15 (10.439)	14.97 (10.393)	15.34 (10.525)
N	304	153	151

Note. Means with standard deviation in parentheses. Educational level was subdivided into six categories (1 = primary education; 2 = secondary vocational education; 3 = preparatory academic education; 4 = vocational education; 5 = higher vocational education; 6 = academic education).

**TABLE 4**  
**Results Exploratory Factor Analysis**

Rotated factor loadings	Pattern matrix		Structure matrix	
	<i>Cognitive</i>	<i>Affective</i>	1	2
<i>“My supervisor [...]”</i>				
1. Encourages me to discuss diverse viewpoints and perspectives on problem-solving with colleagues	-.795		-.858	.660
2. Ensures I have the opportunity to express diverse viewpoints	-.508		-.786	.751
3. Stimulates me to exchange different ideas with colleagues	-.686		-.848	.718
4. Encourages me to use colleagues’ diverse ethnic-cultural backgrounds in problem-solving	-.994		-.911	.598
5. Ensures that I use colleagues’ diverse ethnic-cultural backgrounds as a source for creativity and innovation	-.834		-.895	.684
6. Stimulates me to learn from colleagues’ ethnic-cultural backgrounds	-.942		-.909	.630
7. Stimulates me to actively participate in the team		.829	-.667	.880
8. Ensures I am treated as an equal member of the team		.955	-.567	.869
9. Tries to prevent me from thinking about colleagues in negative stereotypes		.677	-.546	.720
10. Tries to prevent employees forming groups that could exclude other colleagues		.582	-.702	.786
11. Ensures I have the opportunity to be myself in the team		.944	-.604	.891
12. Communicates to employees the benefits of ethnic-cultural diversity in the team		.703	-.636	.797

13. Ensures I have the opportunity to have a voice in the team		.833	-.630	.856
Cronbach's alpha ( $\alpha$ )	.94	.93		

**TABLE 5**  
**Model fit comparison**

Model	CMIN	df	<i>P</i>	CMIN/df	TLI	CFI	RMSEA	SRMR
M0	308.510	65	.000	4.746	.797	.830	.164	.066
M1	205.935	64	.000	3.218	.880	.901	.126	.052
M2	169.530	63	.000	2.691	.908	.926	.110	.047
M3	140.763	62	.000	2.270	.931	.945	.095	.047
M4	119.540	61	.000	1.960	.948	.959	.083	.046
M5	101.930	60	.000	1.699	.962	.971	.071	.041

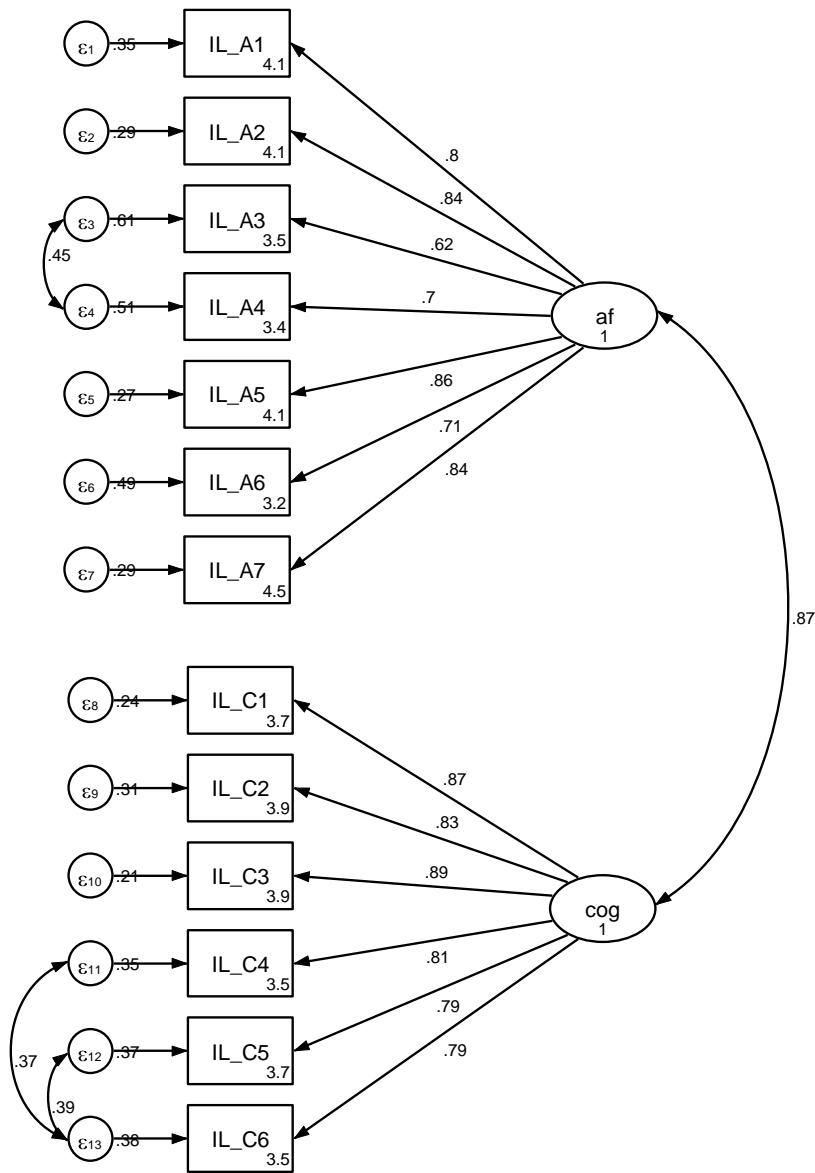
**TABLE 6**  
**Results Confirmatory Factor Analysis**

Standardized regression weights			Estimate
<b>Cognitive dimension</b>			
<i>"My supervisor [...]"</i>			
1. Encourages me to discuss diverse viewpoints and perspectives on problem-solving with colleagues			.855
2. Makes sure I have the opportunity to express diverse viewpoints			.817
3. Stimulates me to exchange different ideas with colleagues			.877
4. Encourages me to use colleagues' diverse ethnic-cultural backgrounds in problem-solving			.799
5. Ensures that I use colleagues' diverse ethnic-cultural backgrounds as a source for creativity and innovation			.790
6. Stimulates me to learn from colleagues' diverse ethnic-cultural backgrounds			.771
<b>Affective dimension</b>			
<i>"My supervisor [...]"</i>			
1. Stimulates me to actively participate in the team			.818
2. Ensures I am treated as an equal member of the team			.820
3. Tries to prevent me to think in negative stereotypes about other colleagues			.629
4. Tries to prevent employees to form groups that could exclude other colleagues			.703
5. Makes sure I have the opportunity to be myself in the team			.818
6. Communicates to employees the benefits of ethnic-cultural diversity in the team			.715
7. Ensures I have the opportunity to have a voice in the team			.828
<b>Correlations</b>			
Cognitive dimension	<-->	Affective dimension	.885
E11	<-->	E13	.316
E2	<-->	E5	.340
E3	<-->	E4	.423
E12	<-->	E13	.402

APPENDIX A: CONFIRMATORY FACTOR MODELS

FIGURE A1

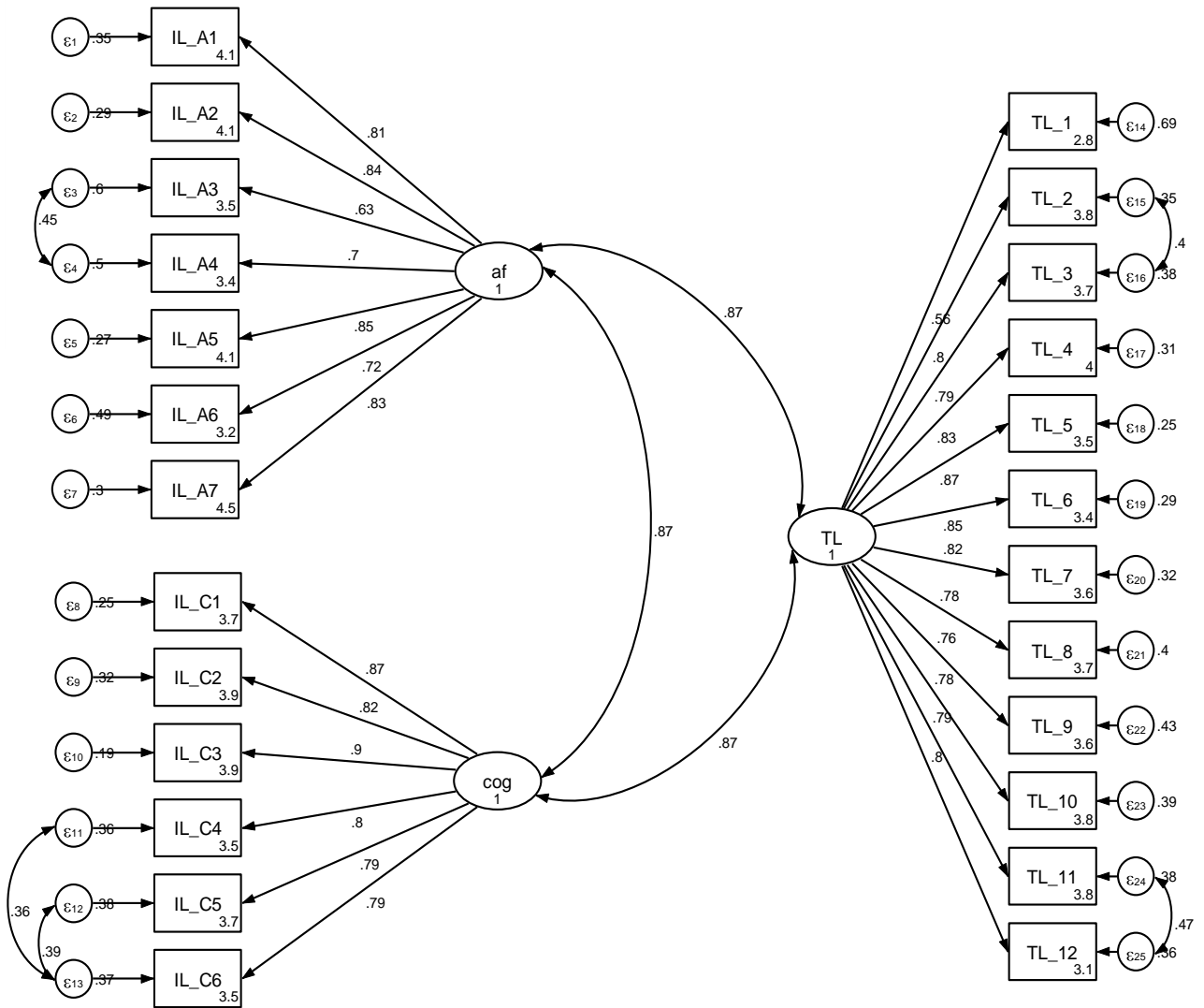
Two-factor model for inclusive leadership involving affective and cognitive leadership behaviours



Note. Model fit:  $\chi^2(61) = 197.659, p = .000, RMSEA = .095, CFI = .949, TLI = .935, SRMR = .042, CD = .984.$

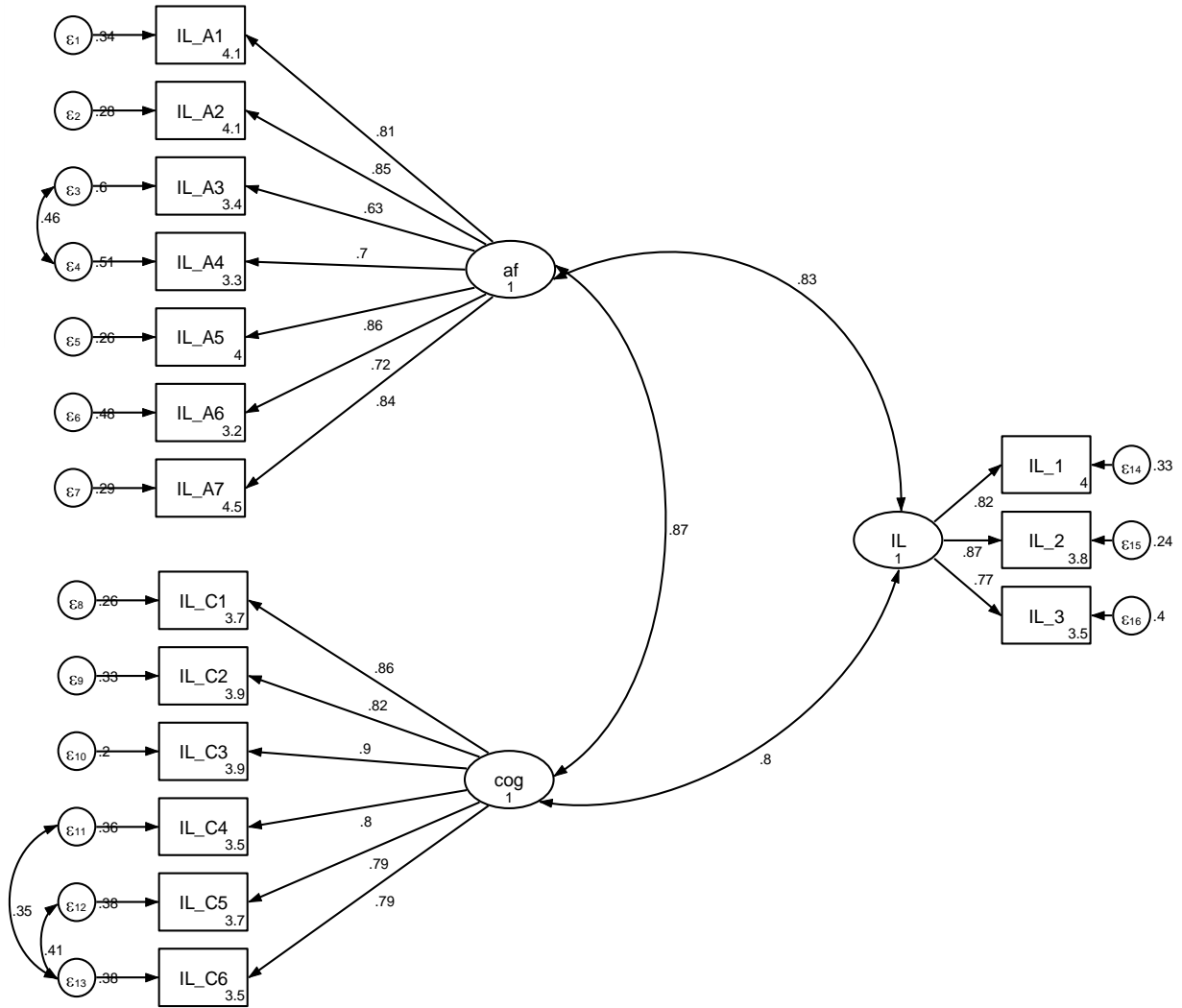
FIGURE A2

Three-factor model with two dimensions of inclusive leadership plus transformational leadership



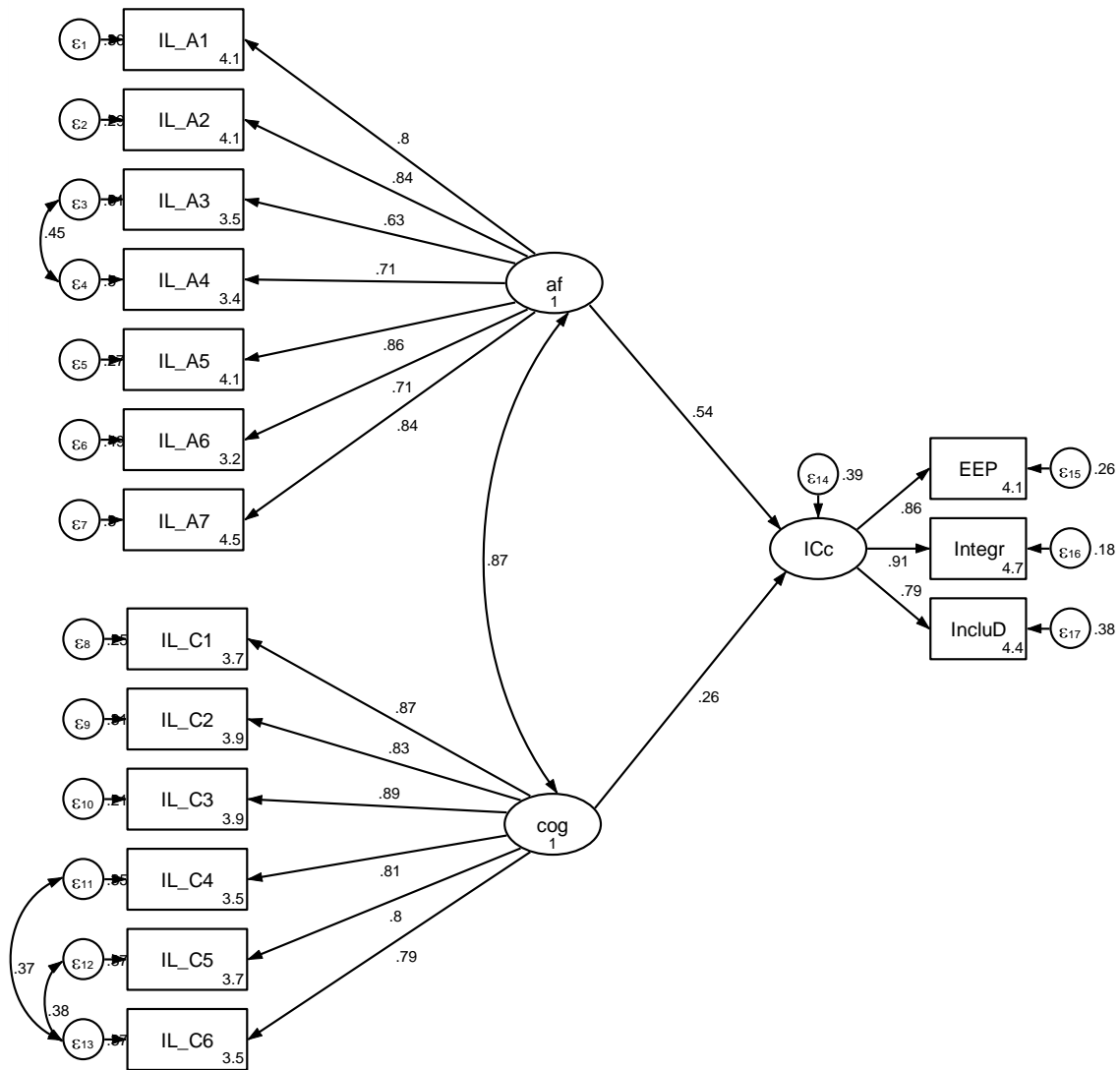
Note. Model fit:  $\chi^2(267) = 681.716, p = .000, RMSEA = .079, CFI = .926, TLI = .917, SRMR = .041, CD = .997.$

**FIGURE A3**  
**Three factor model inclusive leadership and leader inclusiveness**



Note. Three-factor model including the two developed leadership dimensions in addition to leader inclusiveness (IL) measured according to Nembhard and Edmondson (2006). Model fit:  $\chi^2(98) = 288.062, p = .000, RMSEA = .091, CFI = .939, TLI = .925, SRMR = .045, CD = .995$ .

**FIGURE A4**  
**Two-Factor Model Including Inclusive Leadership and Inclusive Climate (ICc)**



Note. EEP = Equal Employment Practices; Integr = Integration of differences; include = Inclusion in decision-making (Nishii, 2013).  
 Model fit:  $\chi^2(98) = 260.48, p = .000, RMSEA = .082, CFI = .951, TLI = .940, SRMR = .039, CD = .985.$