

# VU Research Portal

## Leadership in a Changing Business World

Rosenauer, D.

2015

### **document version**

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

### **citation for published version (APA)**

Rosenauer, D. (2015). *Leadership in a Changing Business World: A Multilevel Perspective on Connecting Employees to Organizational Goals*.

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

### **E-mail address:**

[vuresearchportal.ub@vu.nl](mailto:vuresearchportal.ub@vu.nl)

## CHAPTER 3

# CONTINGENCIES OF NATIONALITY DIVERSITY MANAGEMENT: THE INTERACTIVE EFFECT OF LEADERS' CULTURAL INTELLIGENCE AND TASK INTERDEPENDENCE\*

---

\* I would like to thank Astrid C. Homan, Christiane A. L. Horstmeier, and Sven C. Voelpel for co-authoring this manuscript. Paper is submitted for publication (R&R).

### Abstract

In light of the workforce's increasing nationality diversity, our study explores the antecedents of successful nationality diversity management characterized by a favorable diversity climate and enhanced team performance. We argue that team leaders with higher cultural intelligence can effectively manage cultural differences and thereby enhance diversity climate and performance of nationally diverse teams. Moreover, we propose that the leaders' cultural intelligence becomes more effective to the degree that team members are required to work interdependently. Using multiple-source data from 63 work teams ( $N = 410$ ), we found that nationality diversity is only positively related to diversity climate and performance when both team leader's cultural intelligence and task interdependence are high. Our study does not only provide recommendations for successful nationality diversity management but also yields theoretical implications for diversity and cultural intelligence research.

Continuous globalization and the growing percentage of nonnative employees have made workforces across the world increasingly diverse in terms of nationalities (e.g., Arends-Tóth & Van De Vijver, 2003; McKay et al., 2008; Zick et al., 2001). Many organizations try to actively address this changing labor market. For instance, 80% of the top ranked Global Fortune 500 companies of 2013, representing a broad range of industries and various countries, advertise organizational diversity programs online. The objectives of these initiatives reflect two different, underlying perspectives (Ely & Thomas, 2001; Van Knippenberg et al., 2013). First, from a fairness perspective, nationality diversity management should strive to create a discrimination-free, fair diversity climate. Second, from a competitiveness perspective, diversity constitutes an asset that enhances performance. In line with this categorization, we focus on diversity climate and enhanced performance as indicators of successful nationality diversity management.

Critical debates concerning diversity management practices have evolved in the *British Journal of Management*. For instance, Lorbiecki and Jack (2000) warned that diversity management may in fact stabilize status differences between the privileged group and minorities, and Oswick and Noon (2014) have found striking similarities between diversity management approaches and superficial management fashions, such that organizations' rhetoric commitments to diversity are not accompanied by adequate practices (Tatli, 2011). Given these critical evaluations of organizational practices, we adopt Rink's and Ellemer's (2007) idea that diversity-embracing norms need to be implemented directly at the team level rather than exclusively through top-down initiatives. Thus, we propose that team leaders can set the stage for effective diversity management because they play an influential role in supporting a favorable diversity climate (Herdman & McMillan-Capehart, 2010) and in managing diverse teams (Greer et al., 2012; Homan & Jehn, 2010; Homan & Greer, 2013). More specifically, we propose that leaders' cultural intelligence can explain how leaders

influence nationally diverse teams (Groves & Feyerherm, 2011).

Culturally intelligent leaders will possess the necessary attitudes and skills to prevent negative effects due to adverse social categorization processes and to unlock the positive potential of the different perspectives represented in nationally diverse teams (Ely & Thomas, 2001; Milliken & Martins, 1996; Van Knippenberg et al., 2004). Importantly, we propose that leaders' cultural intelligence will become more important with increasing task interdependence. Task interdependence requires close cooperation with diverse others, so that team processes, which the leader can shape, have stronger implications for diversity climate perceptions and team performance (Joshi & Roh, 2009; Kossek, Zonia, & Young, 1996; Rink & Ellemers, 2007).

Our study yields important contributions: First, we simultaneously consider characteristics of the team (e.g., nationality diversity), the team leader (e.g., cultural intelligence), and the task (e.g., task interdependence). Thereby, we do not only enhance our theoretical understanding of diversity effects in teams but also provide practical recommendations about when and how nationality diversity needs to be managed. Second, we integrate the predominantly separate streams of research on diversity and cultural intelligence to propose that cultural intelligence is a largely disregarded moderator of the nationality diversity - performance relationship, and help to fill the research gap in respect of antecedents of diversity climate. In sum, we offer a team-level approach to nationality diversity management.

### **Nationality Diversity as Double-Edged Sword**

Diversity refers to differences in a group concerning an attribute on which people can differ from or resemble each other (Van Knippenberg & Schippers, 2007). Nationality is especially apt to serve as such an attribute (Stahl, Maznevski, Voigt, & Jonsen, 2010). Easily observable surface-level characteristics (e.g., names, physical appearance, or language

accents) as well as deep-level differences in cultural values, including basic assumptions about appropriate work behavior (e.g., Hofstede, 1980; House, Javidan, Hanges, & Dorfman, 2002), increase the salience of different nationalities in teams (Van Knippenberg et al., 2004).

Diversity has earned the reputation of a double-edged sword (Milliken & Martins, 1996). On the one hand, according to social identity and self-categorization theory, individuals identify with and favor the social group to which they belong (Tajfel & Turner, 1986). Social identification with a salient demographic subgroup bears the risk to displace favorable identification processes with the work group (Hogg & Terry, 2000) and can result in dysfunctional team processes such as subgroup formation (Homan et al., 2010) and conflict (Jehn et al., 1999). Nationality diversity has been shown to elicit these intergroup tensions (Ely & Thomas, 2001). On the other hand, scholars arguing from a cognitive resource perspective have suggested that diversity coincides with a broader range of different perspectives, which can improve team performance, if used effectively (Cox & Blake, 1991; Milliken & Martins, 1996; Webber & Donahue, 2001). Indeed, minority members often contribute novel problem solving approaches (Ely & Thomas, 2001), and ethnically diverse teams are likely to recognize that members possess unique information, if they are not distracted from the existence of their different perspectives (Phillips, Northcraft, & Neale, 2006). Thus, the net effect of diversity depends on whether favorable or unfavorable team processes emerge and is contingent on specific boundary conditions (Joshi & Roh, 2009; Van Knippenberg et al., 2004). As leaders facilitate team functioning (Zaccaro et al., 2001), they can shape whether diversity affects teams in negative or positive ways. For instance, visionary leaders who tend to categorize team members in subgroups hinders communication within diverse teams (Greer et al., 2012), whereas adequate leadership can prevent that diversity impairs team identification in diverse teams (Kearney & Gebert, 2009). As cultural intelligence enables leaders to deal with the particularities of nationality diversity for team

processes, we propose that team leaders' cultural intelligence can act as an important moderator.

### **The Implications of Leader's Cultural Intelligence for Diversity Climate and Team**

#### **Performance in Nationally Diverse Teams**

Cultural intelligence describes "an individual's capability to function and manage effectively in culturally diverse settings" (Ang and Van Dyne, p. 3), which originates from effective behavioral adaptation (behavioral component), intrinsic motivation and self-efficacy beliefs regarding intercultural situations (motivational component) as well as knowledge of and reflection upon cultural differences (cognitive and metacognitive components). While the majority of research on cultural intelligence has focused on expatriates effectiveness (Ang & Van Dyne, 2008; Earley & Ang, 2003), surprisingly few studies explored its interactive relationship with team nationality diversity. Of those exceptions, Adair, Hideg, and Spence (2013) reported a positive relationship between team members' cultural intelligence and shared team values for culturally diverse, but not homogenous, teams. Additionally, Groves and Feyerham (2011) found that team leaders' cultural intelligence was positively associated with team members' ratings of team competence and leader effectiveness when cultural diversity was high. Extending this research, we predict that the leaders' cultural intelligence influences whether diversity has a positive or negative effect on diversity climate and team performance.

#### **Diversity Climate**

Leaders' behaviors towards diversity can shape diversity climate perceptions (Herdman & McMillan-Capehart, 2010; Van Knippenberg et al., 2013). Culturally intelligent leaders enjoy interacting with people from different cultures (Ang et al., 2007; Earley & Ang, 2003) and are aware of cultural differences, which they take into consideration when making judgments about persons and situations (Ang et al., 2007; Triandis, 2006). Given this

favorable combination of positive attitudes and skills, employees of different nationalities may indeed feel treated fairly. Conversely, leaders with low cultural intelligence may have less elaborate diversity cognitions. Therefore, they are more prone to rely on nationality as a cue to categorize their team members (Homan et al., 2010) and to lead their team in terms of objective subgroups rather than as unique individuals (Greer et al., 2012). Thus, they run risk of engendering feelings of unfair treatment.

Furthermore, team leaders shape climate perceptions by helping employees interpret organizational practices (Ostroff et al., 2003). Making sense of diversity practices may be especially necessary, as they easily create equivocal situations (Ely & Thomas, 2001). Minority members tend to distrust diversity initiatives if they doubt whether these practices aim to improve their situation or serve to legitimize the status quo (Lorbiecki & Jack, 2000; Purdie-Vaughns et al., 2008), while majority members easily feel excluded by diversity programs (Plaut, Garnett, Buffardi, & Sanchez-Burks, 2011). Due to their strong intercultural communication skills (Imai & Gelfand, 2010), culturally intelligent leaders may address these concerns in a way that is comprehensible and inclusive to employees of all nationalities resulting in a favorable diversity climate. In contrast, team leaders with low cultural intelligence may lack the skills to defuse ambiguous situations.

### **Team Performance**

In order to turn nationality diversity into a business advantage, team leaders need to facilitate favorable team processes that integrate the varying perspectives in diverse teams (Van Knippenberg et al., 2013). Indeed, team leaders' personal work attitudes determine the emergence of cooperative team norms, especially when team members do not initially expect smooth cooperation with their colleagues (Taggar & Ellis, 2007), which is usually the case in diverse teams (Chatman & Flynn, 2001). As culturally intelligent leaders are not only open-minded towards different cultures but also endorse cooperative norms (Imai & Gelfand,

2010), they are likely to shape team norms that appreciate and consider different perspectives in nationally diverse teams and thereby increase team performance (Homan et al., 2007). On the other hand, leaders with low cultural intelligence have more difficulties to understand and judge cross-cultural interactions appropriately (Ang et al., 2007). Thus, they may be less skilled to identify and overcome cultural obstacles that hinder effective cooperation and, consequently, team performance of nationally diverse teams.

Besides shaping team norms, cultural intelligence enables leaders to elicit and integrate non-shared information in cross-cultural settings (Imai & Gelfand, 2010). In contrast, team leaders with low cultural intelligence are less likely to share ideas with culturally different others (Chua, Morris, & Mor, 2012). Therefore, they may not be inclined to foster information exchange between nationally diverse team members. As the elaboration of information is supposed to account for performance gains in diverse as opposed to homogeneous teams (Van Knippenberg et al., 2004), culturally intelligent leaders may know how to effectively unlock the benefits of diversity, whereas those with low cultural intelligence may overlook that diversity can be an asset rather than a liability for team performance.

Although team leaders may contribute to diversity management (i.e., diversity climate and team performance) through role modeling and their influence on team processes, their impact is likely to be limited when the task characteristics do not require team members to cooperate intensely. Thus, task interdependence may be an additional boundary condition that affects whether diverse teams benefit from their leaders' cultural intelligence.

### **The Moderating Role of Task Interdependence**

Task interdependence describes the extent to which employees need to collaborate in order to fulfill the group task (Shea & Guzzo, 1987). When task interdependence is low, team members have fewer occasions to observe their leader's behavior towards colleagues of

different nationalities. However, these observations, rather than the mere increase in workplace diversity, are important to form (un)favorable diversity climate perceptions (Ely & Thomas, 2001; Kossek et al., 1996). Moreover, team performance in less interdependent teams is additive, rather than conjunctive, so that it is less subject to process losses (e.g., elevated levels of conflicts) or process gains (e.g., more effective work strategies based on various perspectives), associated with diversity (Horwitz & Horwitz, 2007).

The opposite applies to highly interdependent teams, in which team members are more likely to experience the different implications of diversity during the close collaboration with colleagues of different nationalities. Whereas task interdependence is thus a prerequisite to elicit diversity effects (Rink & Ellemers, 2007), it is in itself not sufficient to stimulate effective cooperation and desirable behaviors (e.g., Somech, et al., 2009; Van Der Vegt & Janssen, 2003) but tends to amplify both positive and negative diversity effects (Joshi & Roh, 2009; Jehn et al., 1999). Thus, the team leaders' abilities to effectively facilitate diversity climate perceptions and team performance become more crucial with increasing task interdependence.

Summarizing our reasoning on the interplay between nationality diversity, team leaders' cultural intelligence, and task interdependence, we propose the following hypotheses:

*Hypothesis 1: There will be a three-way interaction effect of nationality diversity, task interdependence, and leaders' cultural intelligence on diversity climate. In highly interdependent teams, nationality diversity will be positively related to team perceptions of diversity climate when leaders' cultural intelligence is high but negatively related to team perceptions of diversity climate when leaders' cultural intelligence is low.*

*Hypothesis 2: There will be a three-way interaction effect of nationality diversity, task interdependence, and leaders' cultural intelligence on team performance. In highly*

*interdependent teams, nationality diversity will be positively related to team performance when leaders' cultural intelligence is high but negatively related to team performance when leaders' cultural intelligence is low.*

## **Method**

### **Participants and Procedure**

We collected data in a German, nationally diverse facility management company (23% non-German employees from 78 different nations), which provided an excellent setting to test our research hypotheses. The company offers a variety of specialized services ranging from building and public facility cleaning to public vehicle cleaning and to technical building maintenance. The work teams were either functional (e.g., providing special services such as graffiti removal or fire protection) or object-based (e.g., maintaining specific real estate objects) resulting in varying levels of task interdependence across and within these divisions.

Data collection was embedded in a broader organizational employee survey. Two researchers collected data in separate meetings for team members and their leaders, which took place during working hours. About six months later, we contacted the team leaders' supervisors to obtain team performance ratings. Participants could choose between a German, Turkish, or English questionnaire. To generate parallel language versions (Brislin, 1970), a team of four native or proficient bi-lingual speakers translated each version from all other language versions (English to German; German to English; German to Turkish; Turkish to English).

We received 488 questionnaires from members of 75 teams. We first defined criteria to identify participants who provided low quality data. First, participants who were not seriously interested in contributing probably stopped completing the questionnaire at an early point. Thus, we excluded questionnaires that yielded more than 70% missing answers. Second, some participants may have quickly checked random response options regardless of

the item content. Therefore, we analyzed the pattern of chosen response categories and excluded 17 participants who had chosen the same category (e.g., 5 – '*strongly agree*') across a whole page that contained multiple constructs and reversed coded items. Finally, we included teams with three or more team members and at least 50% respondents to ensure representativeness. Moreover, teams with missing values on any of our main study variables were excluded.

We ultimately obtained a final sample of 410 employees from 63 teams. Team members were predominantly male (85%), with a mean age of 45 years ( $SD = 11.22$ ), had worked for the company for 20.99 years ( $SD = 7.01$ ), and 22% indicated a nationality other than German.<sup>1</sup> Non-German participants represented various countries in Europe (e.g., Turkey, Poland), Asia (e.g., Vietnam, India), Africa (e.g. Ghana, Senegal) and the Arabic world (e.g., Iraq, Morocco). Whereas 28 teams were nationally homogenous, 35 teams included on average 2.89 different nationalities ( $SD = .99$ ). Most team members completed a German version of the questionnaire ( $N = 357$ ), whereas 51 employees chose the Turkish version and two employees the English version. Team leaders were mostly male (81%), German (68%), on average 45 years old ( $SD = 9.41$ ), and had worked in their current position for 8.25 years ( $SD = 7.03$ ). Only seven team leaders preferred the Turkish questionnaire to the German version ( $N = 56$ ). Thirty percent of the teams belonged to the technical division, 29% to the building cleaning division, and 41% to the vehicle cleaning division. On average, the teams consisted of 9.11 employees ( $SD = 5.97$ ) ranging from four to 36 team members.

### **Measures**

The response scale of all the items ranged from 1 ("*strongly disagree*") to 5 ("*strongly agree*"). We aggregated individual employee responses, such that group-means represented team-level constructs.

**Nationality diversity.** As we theoretically defined diversity as variety, we calculated

the index of the quality variation (IQV) of each team, which considers the number and percentage distribution of different nationalities. The IQV is a standardized Blau index adjusted for the theoretical maximum of nationality diversity, which depends on the team size (Harrison & Klein, 2007). As the human resource department provided archival data, we obtained an objective measure of nationality diversity, even for teams in which not all team members participated in the survey.

**Task interdependence.** Team members rated two items adapted from Langfred (2007), namely "Team colleagues have to work together in order to get team tasks done" and "Whether I can do my job depends on whether others do their job." However, participants frequently indicated that the latter item was difficult to understand and the correlation between both items was low ( $r = .32, p < .001$ ). Therefore, we decided to use only the first item. Considered together,  $ICC(1) = .11$ ,  $ICC(2) = .45$ , and median  $r_{wg} = .75$  provided sufficient reason for aggregation and were comparable to previous research findings on task interdependence (e.g., Somech et al., 2009). Moreover, significantly higher between-team than within-team variability,  $F(62, 342) = 1.81, p < .001$ , supported our conceptualization as team-level construct.

**Cultural intelligence.** Team leaders completed 11 items from the Cultural Intelligence Scale (Ang et al., 2007). Sample items are "I consciously apply my cultural knowledge when interacting with people with different cultural backgrounds," and "I enjoy interacting with people from different cultures." Cronbach's  $\alpha$  was .87.

**Diversity climate.** Team members answered five items describing a fair diversity climate (Mor Barak, Cherin, & Berkman, 1998), such as "Managers here are known for hiring and promoting employees regardless of their skin color, sex, religion, or age," and "Managers here give feedback and evaluate employees fairly, regardless of the employee's cultural background, sex, religion, or age." After excluding one item that diminished the

reliability ("I feel I have been treated differently here because of my skin color, sex, religion or age," reversed coded), we obtained a Cronbach's  $\alpha = .79$ . Agreement indices generally provided support for aggregation (ICC[1] = .34, ICC[2] = .76, median  $r_{wg(J)} = .67$ ) and were similar to previous research on diversity climate (e.g., Gonzalez & Denisi, 2009). Although  $r_{wg(J)}$  was slightly below the usually reported value of .70, indicating some within-team variation, we proceeded with the aggregation because ratings of diversity climate varied to a greater extent between than within teams,  $F(62, 332) = 4.25, p < .001$ .

**Team performance.** The team leaders' supervisors were instructed to compare the team to other teams performing a similar task (Van Der Vegt & Bunderson, 2005), and to evaluate it with two items – overall performance and work quality – on a scale from 1 ("*far below average*") to 5 ("*far above average*"). The item correlation was  $r = .66, p < .001$ .

**Control variables.** With regard to the team leader, hierarchical position, experience operationalized as position tenure, interaction frequency with the team, and ethnicity might influence team performance and diversity climate. Further, we considered division and team size as team characteristics that might impact the outcome variables. Moreover, as team members' educational background may affect performance, we included the percentage of team members who hold a university entrance or higher degree. We also controlled for the percentage of Germans (as opposed to non-Germans) because research has shown that majority and minority group members perceive diversity climate differently (Mor Barak et al., 1998). Finally, as we were specifically interested in nationality diversity, we controlled for other types of diversity such as age (operationalized as within-team standard deviation) and gender (operationalized as Blau index).

## Results

### Preliminary Analysis

We were able to probe measurement equivalence of the German and non-German versions of our diversity climate measure because it was the only measures that consisted of multiple items, and both language subgroups were big enough to conduct a multiple group confirmatory factor analysis (B. M. Byrne, 2012). In this procedure, separate models for each language subgroup are estimated simultaneously. Factor loadings and item intercepts are then constrained equal across groups. Strong measurement invariance is established, if these constraints do not significantly impair the overall model fit. The nonsignificant  $\chi^2$  difference test,  $\Delta \chi^2(6) = 6.54, p = .37$ , indicated that the German and the non-German diversity climate items measure the same construct and supported the validity of our translation-back translation procedure.

Next, we explored the relationship of the proposed control variables with the outcome variables to avoid that impotent controls unnecessarily impair statistical power (Becker, 2005). For this purpose, we regressed our two dependent variables on the proposed controls (Kraimer et al., 2011) and identified three significant control variables, which we retained in our subsequent analyses. Team performance was rated less favorably for the vehicle cleaning division ( $\beta = -.64, p = .02$ ) and for teams with experienced leaders ( $\beta = -.35, p = .01$ ), whereas diversity climate was perceived more favorably by age diverse teams ( $\beta = .44, p = .004$ ). Table 3.1 shows the descriptive statistics and correlations of all variables included in the main analysis.

Table 3.1

*Means, Standard Deviations, and Zero-Order Correlations*

|                                   | Mean ( <i>SD</i> ) | 1.     | 2.     | 3.     | 4.   | 5.    | 6.   | 7.    | 8.    | 9.    |
|-----------------------------------|--------------------|--------|--------|--------|------|-------|------|-------|-------|-------|
| 1. Leaders' Position Tenure       | 99.03 (84.35)      |        |        |        |      |       |      |       |       |       |
| 2. Team Age Diversity             | 8.68 (3.32)        | -.15   |        |        |      |       |      |       |       |       |
| 3. Division Vehicle <sup>a</sup>  | .41 (.50)          | .07    | -.40** |        |      |       |      |       |       |       |
| 4. Division Building <sup>a</sup> | .29 (.46)          | -.11   | -.04   | -.53** |      |       |      |       |       |       |
| 5. Nationality Diversity          | .27 (.30)          | .20    | -.24   | .32*   | .14  |       |      |       |       |       |
| 6. Task Interdependence           | 4.35 (.52)         | .02    | -.07   | .16    | -.17 | -.00  |      |       |       |       |
| 7. Leaders' Cultural Intelligence | 3.73 (.66)         | -.00   | .05    | .15    | -.11 | .34** | .05  | (.87) |       |       |
| 8. Team Performance <sup>b</sup>  | 3.23 (.63)         | -.36** | .15    | -.23   | .13  | -.10  | -.12 | -.27* | (.66) |       |
| 9. Diversity Climate              | 3.43 (.81)         | -.21   | .47**  | -.28*  | .09  | -.11  | .16  | .05   | .24   | (.79) |

*Note.*  $n = 63$ ; Cronbach's  $\alpha$  is indicated in brackets on the diagonal. <sup>a</sup>coded 0 = team does not belong to this division, 1 = team belongs to this division; <sup>b</sup>two-item measure; correlation instead of Cronbach's  $\alpha$  is reported. \*  $p < .05$ , \*\*  $p < .01$

### **Main Analysis**

We used hierarchical linear regression analyses to test our hypotheses (Table 3.2). With regard to Hypothesis 1, the three-way interaction between nationality diversity, task interdependence, and cultural intelligence was significantly associated with diversity climate ( $b = 2.20, SE = 1.04, p = .04$ ). To further explore the nature of the interaction, we created plots for low and high values of the moderating variables (Figure 3.1), and conducted simple slope tests (Aiken & West, 1991). As theorized, nationality diversity was not significantly related to diversity climate when task interdependence was low, irrespective of leaders' cultural intelligence ( $b = -.64, SE = .66, p = .34$ , and  $b = -.19, SE = .61, p = .76$ ). In contrast, in highly interdependent teams, nationality diversity was positively related to diversity climate when leaders' cultural intelligence was high ( $b = 1.83, SE = .72, p = .01$ ) yet unrelated to diversity climate when leaders' cultural intelligence was low ( $b = -.73, SE = .86, p = .40$ ), providing partial support for Hypothesis 1.

As predicted in Hypothesis 2, we found a significant three-way interaction associated with team performance ( $b = 1.88, SE = .81, p = .02$ ; see Figure 3.2). When task interdependence was low, nationality diversity was not significantly related to team performance, regardless of leaders' cultural intelligence ( $b = -.13, SE = .47, p = .78$ , and  $b = -.05, SE = .51, p = .92$ ). However, a different result pattern emerged for highly interdependent teams: Nationality diversity was positively related to team performance when leaders' cultural intelligence was high ( $b = 1.92, SE = .56, p = .001$ ) but it was unrelated to team performance when leaders' cultural intelligence was low ( $b = -.49, SE = .66, p = .49$ ), partially supporting Hypothesis 2.

Table 3.2

*Hierarchical Linear Regression Analyses for Diversity Climate and Team Performance*

|   | <u>Diversity Climate</u> |           | <u>Team Performance</u> |           |
|---|--------------------------|-----------|-------------------------|-----------|
|   | <i>b</i>                 | <i>SE</i> | <i>b</i>                | <i>SE</i> |
| Step 1  |                          |           |                         |           |
| Position Tenure   | -.001                    | .001      | -.002**                 | .001      |
| Division Vehicle <sup>a</sup>   | -.16                     | .27       | -.33                    | .21       |
| Division Building <sup>a</sup>  | .07                      | .27       | -.24                    | .21       |
| Age Diversity   | .10**                    | .03       | .00                     | .03       |
| <i>F</i>  | 4.93**                   |           | 3.07*                   |           |
| <i>R</i> <sup>2</sup>   | .25                      |           | .18                     |           |
| Step 2  |                          |           |                         |           |
| Nationality Diversity <sup>b</sup>                                      | .07                      | .40       | .38                     | .31       |
| Task Interdependence <sup>b</sup>                                       | -.04                     | .23       | -.42*                   | .18       |
| Cultural Intelligence <sup>b</sup>                                      | .02                      | .15       | -.32**                  | .11       |
| <i>F</i>  | 3.39**                   |           | 2.81*                   |           |
| <i>R</i> <sup>2</sup>   | .30                      |           | .26                     |           |
| $\Delta R^2$  | .05                      |           | .09                     |           |
| Step 3  |                          |           |                         |           |
| Nationality Diversity X Task<br>Interdependence                         | .94                      | .69       | .67                     | .54       |
| Nationality Diversity X Cultural Intelligence                           | .80                      | .48       | .83*                    | .37       |
| Task Interdependence X Cultural<br>Intelligence                         | -.51                     | .37       | -.25                    | .28       |
| <i>F</i>  | 2.92**                   |           | 2.88**                  |           |
| <i>R</i> <sup>2</sup>   | .36                      |           | .36                     |           |
| $\Delta R^2$  | .06                      |           | .09                     |           |
| Step 4  |                          |           |                         |           |
| Nationality Diversity X Task<br>Interdependence X Cultural Intelligence | 2.20*                    | 1.04      | 1.88*                   | .81       |
| <i>F</i>  | 3.24**                   |           | 3.34**                  |           |
| <i>R</i> <sup>2</sup>   | .41                      |           | .42                     |           |
| $\Delta R^2$  | .05*                     |           | .06*                    |           |

Note. *n* = 63. Unstandardized parameter coefficients are reported (Aiken & West, 1991).

<sup>a</sup>Dummy coded, technical division used as reference group; <sup>b</sup>Variables were mean centered for the analysis and the computation of the interaction terms (Aiken & West, 1991).

\* *p* < .05 , \*\* *p* < .01

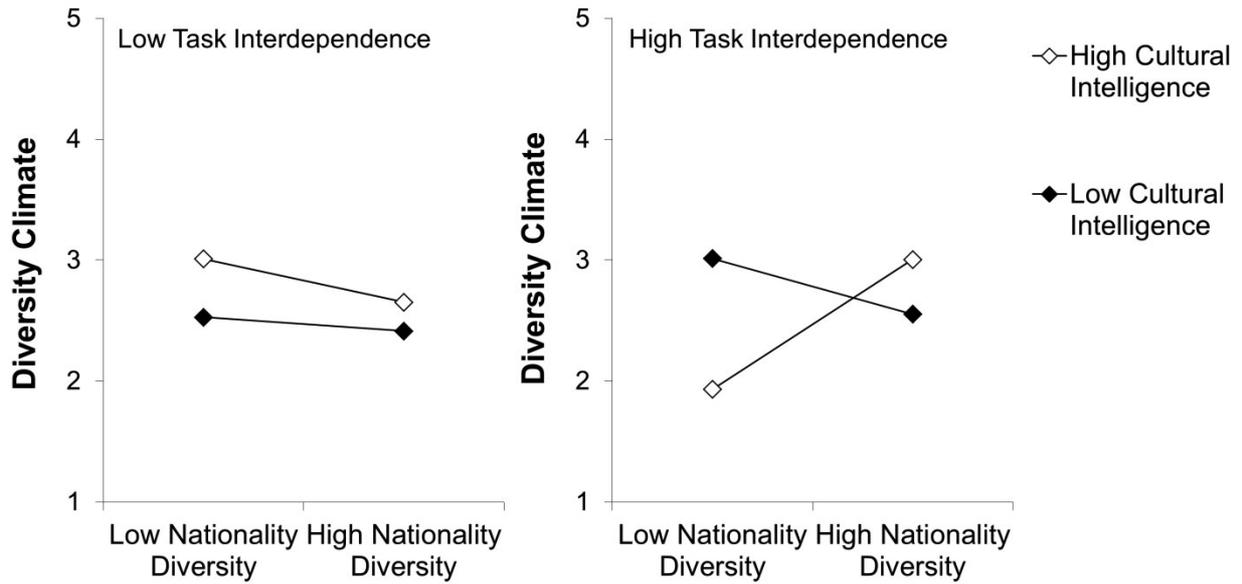


Figure 3.1. Effects of nationality diversity, task interdependence, and leaders' cultural intelligence on diversity climate. High/low values correspond to one standard deviation above/ below the mean.

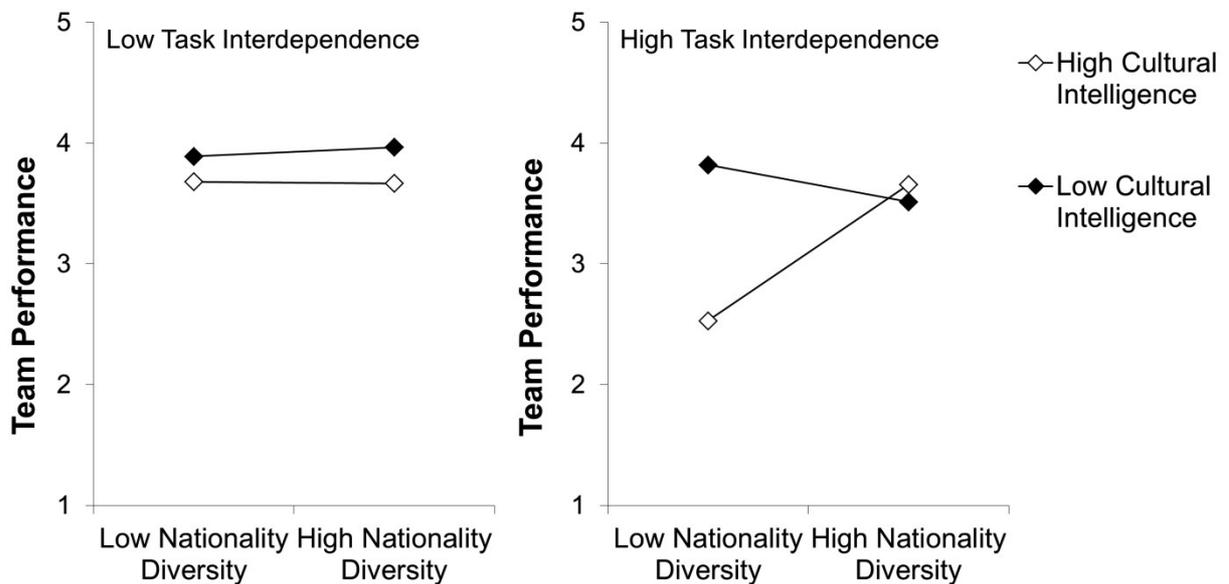


Figure 3.2. Effects of nationality diversity, task interdependence, and leaders' cultural intelligence on team performance. High/low values correspond to one standard deviation above/below the mean.

### Supplementary Analysis

Previous research has reported positive effects of a favorable diversity climate on individual and firm performance in diverse settings (Gonzalez & Denisi, 2009; McKay et al., 2008). Thus, we explored whether diversity climate mediated between the interactive effect of nationality diversity, task interdependence, and leaders' cultural intelligence on team performance. We tested a boot-strapped mediated moderation model (Hayes, 2012), but found no indication of an indirect effect via diversity climate ( $b = .01$ ,  $SE = .34$ , 95% CI [-.70; .74]).

Furthermore, as our theoretical reasoning specifically pertains to nationality diversity, we did not expect to replicate the results for other types of diversity. Indeed, the hypothesized three-way interaction did neither occur for age nor gender diversity in predicting team performance ( $b = -.07$ ,  $SE = .09$ ,  $p = .41$ , and  $b = .96$ ,  $SE = 1.22$ ,  $p = .44$  respectively) and diversity climate ( $b = .07$ ,  $SE = .11$ ,  $p = .50$ , and  $b = .92$ ,  $SE = 1.54$ ,  $p = .56$  respectively). Thus, whereas cultural intelligence is beneficial for interdependent, nationally diverse teams, it does not seem to be a universal diversity competence, which generalizes to other types of diversity.

### Discussion

We proposed that successful nationality diversity management, which strives to establish a fair, discrimination-free diversity climate and uses diversity to enhance performance, is contingent on the interplay of actual team nationality diversity, task interdependence, and the leader's cultural intelligence. Most of our predictions were supported. When interdependence was low, diversity was unrelated to perceived diversity climate and actual team performance, irrespective of leaders' cultural intelligence. In contrast, in interdependent teams, diversity was positively related to perceived diversity climate and team performance when leaders' cultural intelligence was high. Yet, contrary to our hypotheses, we did not find significant effects of nationality diversity in interdependent teams

when leaders' cultural intelligence was low. Although the direction of the effects was negative, as expected, it failed to reach significance due to the large standard errors indicating substantial variability.

### **Theoretical Implications and Future Directions**

**Diversity research.** Our study yields interesting contributions to diversity research. First, we provide empirical evidence that task interdependence is a prerequisite to enable diversity effects. Although scholars widely share this assumption, it is hardly ever tested. For instance, authors of meta-analyses on diversity did not find any empirical studies including low interdependence teams (Horwitz & Horwitz, 2007) or had to rely on rough operationalizations derived from general sample descriptions (Joshi & Roh, 2009). Moreover, task interdependence and task complexity tend to be combined as one single task characteristic (e.g., Joshi & Roh, 2009), although this practice obscures that non-complex, routine tasks can vary in terms of task interdependence (e.g., Wageman & Baker, 1997). Importantly, these two task characteristics seem to have different implications in diverse teams: Whereas task complexity has been associated with performance gains (Bowers, Pharmer, & Salas, 2000; Van Dijk, Van Engen, & Van Knippenberg, 2012), our study shows that task interdependence is a double-edged sword in itself, as other characteristics – in our case leaders' cultural intelligence – determine whether diverse teams work well together or not.

Furthermore, we illustrate the importance to match the proposed moderator to the specific diversity type at hand. In our study, for instance, culturally intelligent leaders could overcome challenges and unlock the potential of nationality diversity but not of age or gender diversity. It is not uncommon that researchers who focus on multiple, yet exclusively demographic diversity attributes (i.e., nationality, gender, or age) have found effects for some types but not for others (e.g., Harrison, Price, & Bell, 1998; Jackson & Joshi, 2004; Riordan

& Shore, 1997). Although these findings are at odds with the assumption that the underlying processes resulting in (un)favorable diversity effects are universal (Van Knippenberg et al., 2004), research has not yet provided a good explanation for these inconsistencies. Our model reconciles these ostensible contradictions, as the proposed moderator (i.e., cultural intelligence) is apt to address the unique aspects inherent to one specific diversity type (i.e., nationality diversity) but not to other demographic attributes, *and* the model is compatible with the universal process model developed by Van Knippenberg and colleagues (2004). Future research could identify further moderators that are specific to age or gender diversity. Drawing analogies from cultural intelligence, competencies for other diversity types should include knowledge about what distinguishes people who differ on the diversity type in question, and the skills to effectively interact and communicate with them. For instance, while older employees benefit from their broader experience, younger employees have an advantage concerning new technologies (Kanfer & Ackerman, 2004). Leaders who have close mentoring relationships with younger or older partners may be more aware of these differences and more skilled at addressing and integrating them. Likewise, leaders who have grown up with different-sex siblings may have developed a gender diversity competency, which helps them to consider and effectively deal with men's and women's differing preferences to cooperate in different situations (Balliet, Li, Macfarlan, & Van Vugt, 2011). In sum, matching the moderators and the diversity type may resolve inconsistencies and lead to more rigorous predictions about diversity effects.

**Cultural intelligence research.** Our research highlights the advantages of cultural intelligence not only for expatriates (Ang et al., 2007; Earley & Ang, 2003) but also for leaders of interdependent, nationally diverse teams. We expand previous findings on team member-rated leader effectiveness and work group competence (Groves & Feyerherm, 2011) to successful nationality diversity management. The consideration of culture is the unique

characteristic of cultural intelligence that creates added value beyond general constructs, such as emotional intelligence or leadership competencies, in intercultural settings (Ang et al., 2007; Groves & Feyerherm, 2011), and the combination of reflexivity, behavioral and communicative skills as well as cultural openness enables leaders to establish a favorable diversity climate and ensure performance in nationally diverse, interdependent teams. However, at the flip side of the coin, the specific focus on culture limits the effectiveness to contexts characterized by nationality diversity and does not seem to generalize to gender or age diversity. Thus, cultural intelligence should not be confused with general diversity competence.

Moreover, based on our theoretical reasoning, we expected that nationality diversity would be negatively related to diversity climate and team performance when leaders' cultural intelligence is low, but this aspect of our hypotheses was not supported. Surprisingly, when task interdependence was high, team performance in nationally diverse teams appears to be rather high, regardless of supervisors' cultural intelligence. Potentially, teams may develop effective strategies to deal with nationality diversity, which are independent of leaders' cultural intelligence. For instance, team members may have favorable attitudes towards diversity, even if their leader does not, and may thus initiate team processes that enhance diversity climate and team performance (e.g., Homan et al., 2007). It is also possible that leaders' cultural intelligence cannot augment team performance any further, when team members already know how to capitalize effectively on their nationality diversity. To shed further light on this issue, future research may investigate both team leaders' and team members' attitudes towards diversity simultaneously, in order to explore their relative importance.

Although in moderated regression the slopes, rather than the end points of interaction plots should be interpreted (Aiken & West, 1990), Figure 2 seems to imply that team

performance appears to be lowest for leaders with high cultural intelligence in nationally homogenous teams. This unexpected observation mirrors the results by Adair and colleagues (2013), who found that cultural intelligence hinders the development of shared values in homogenous teams. Possibly, in situations in which cultural intelligence is not needed, it bears the potential to disrupt team processes and performance. These observations challenge the implicit assumption that cultural intelligence is a uniformly positive or – at worst – neutral characteristic (Earley & Ang, 2003). Future research should explore the potential negative effects resulting from a mismatch of high cultural intelligence in nationally homogenous settings in greater depth.

**Nationality diversity management research.** While a substantial body of research praises the positive consequences of a favorable diversity climate (cf., Van Knippenberg et al., 2013), little is known about how to create it. Our study illustrates that this task depends on complex moderators. Favorable diversity climate emerges from the alignment between the communicated organizational intentions and what employees observe at their workplace (Ostroff et al., 2003). In interdependent teams, team members have many occasions to interact with nationally diverse colleagues and to witness how they are treated. Culturally intelligent leaders behave in an inclusive way that helps employees appreciate and make sense of cultural differences. When combined with high nationality diversity, employees perceive consistent diversity cues, which result in favorable diversity climate perceptions (Purdie-Vaughns et al., 2008). While our findings highlight the leader's important role in shaping the diversity climate in interdependent teams (Herdman & McMillan-Capehart, 2010), it is noteworthy that diversity climate is independent of leaders' cultural intelligence when task interdependence is low. Thus, the lack of interaction seems to prevent team leaders from influencing diversity climate perceptions by acting as role model, or by managing team processes.

The interplay of boundary conditions that shape diversity climate inspires some interesting future research questions: First, diversity management is often seen as a top-down process, in which the organization launches initiatives aimed to enhance diversity (Herdman & McMillan-Capehart, 2010). Future research could also investigate bottom-up processes in greater depth. For instance, culturally intelligent team leaders at lower organizational levels may change diversity climates even in organizations that do not particularly care about diversity (Rink & Ellemers, 2007). Second, future research could examine what drives diversity climate perceptions of employees in less interdependent teams, as team leaders seem to be less influential under this condition. Are individual team members' own attitudes towards diversity more important, or do organizational climates shape team diversity climates?

Finally, we examined the relationship between diversity climate and team performance in an exploratory fashion. Although other scholars have reported positive effects of diversity climate on individual and firm performance (e.g., Gonzalez & Denisi, 2009; McKay et al., 2008), diversity climate did not act as a mediator in our study. Possibly, a discrimination-free, fair environment, reflected by our diversity climate measure, might be more important for individual and firm performance than for team performance. For instance, McKay et al. (2008) found that under favorable diversity climate individual performance increased for minority, but not majority employees indicating that maybe only minority employees reciprocate organizational efforts against discrimination with enhanced performance. At the firm level, a discrimination-free organization might be better equipped to access the growing market of ethnic minorities (Ely & Thomas, 2001; Gonzalez & Denisi, 2009). Yet, Van Knippenberg, Homan and Van Ginkel (2013) questioned whether diversity climates that concentrate only on the prevention of discrimination are sufficient to increase team performance, as this perspective does not consider the potential gains associated with

diversity. Thus, diversity climates that reflect an underlying value-in-diversity belief, such as endorsement of multiculturalism, might indeed mediate between diversity and team performance in interdependent teams.

### **Practical Implications**

Organizations can encounter the shortcomings of diversity management that focuses exclusively on organizational diversity practices, such as special programs targeting minorities (Oswick & Noon, 2014; Tatli, 2011), by facilitating that employees directly experience the positive sides of diversity within their work teams. Although there is also no simple one-fits-all solution at the team level, we offer a comprehensive framework to assess when and how nationality diversity needs to be managed. First, when task interdependence is high, team leaders are crucial for successful nationality diversity management in nationally diverse teams. Thus, organizations may invest in cultural intelligence trainings to enhance leaders' intercultural capabilities. Yet, we caution against precipitate training or personnel selection based on cultural intelligence, if the respective leaders do not have to manage nationally diverse teams because team performance may suffer from a mismatch of high cultural intelligence in homogenous teams. To avoid this unfavorable combination, organizations need to carefully synchronize the enhancement of nationality diversity and leaders' cultural intelligence.

In contrast, when interdependence is low, leaders may have limited impact on diversity climate perceptions and team performance. Nevertheless, due to the increasing nationality diversity of the general workforce and the important implications for individual and firm performance (Gonzalez & Denisi, 2009; McKay et al., 2008), organizations can not evade nationality diversity management but need to adopt alternative diversity-enhancing strategies.

Moreover, we recommend monitoring which type of demographic diversity is relevant for the organization at hand. Whereas cultural intelligence might be especially valuable to manage nationality diversity, different competencies might be more appropriate to address gender and age diversity.

### **Strengths and Limitations**

Our study's particular strength is the integration different data sources: Nationality diversity was obtained from company records, team members rated task interdependence and diversity climate, team leaders rated their cultural intelligence, and team leaders' supervisors assessed team performance. Thus, it is unlikely that common method bias or self-serving bias in performance ratings of the own team distorted our results. However, we acknowledge that our nonexperimental study design cannot determine causality of the proposed relationships. Nevertheless, we have confidence in the directionality of our results because it is difficult to plausibly explain the complex pattern of results assuming reversed causality and because we collected team performance ratings after a time lag of several months.

Although objective performance ratios are more desirable than team performance ratings, objective performance indicators applicable to all teams were not available at our level of analysis. Thus, while we had to rely on performance ratings from managers at the next higher hierarchical level, future research might replicate our findings using objective indicators. As another limitation, we had to use short scale measures due to the restricted length of the questionnaire. Future research could use more extensive or alternative operationalizations, such as team member ratings of leaders' cultural intelligence, instead of self-reports.

Furthermore, our sample provided a rather conservative setting because it consisted of blue collar workers who performed rather simple tasks, which restrict the possibility to detect positive diversity effects. We would speculate that our findings might be even more

pronounced in teams working on complex tasks that require creative solutions (Van Knippenberg et al., 2004).

### **Conclusion**

As nationality diversity is expected to increase considerably, organizations need to develop effective strategies for nationality diversity management. For this purpose, characteristics of the task, the leader and actual team diversity need to be considered simultaneously. In interdependent teams, team leaders play a key role for nationality diversity management. Specifically, cultural intelligence equips leaders with the skills needed to create a favorable diversity climate and to unleash the positive potential of diversity for team performance in interdependent, nationally diverse teams.

Footnotes

<sup>1</sup> Demographics of members in excluded teams were similar (79% male; mean age = 44.21,  $SD = 11.75$ ; mean tenure = 20.45,  $SD = 4.92$ ; 23% non-German).