Academic Staff Involvement and Openness to Diversity in International Educational Organisations: Is There a Moderating Effect of Shared Language?

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Abstract

Joint work among academic staff is important for solving the ever-increasing number of complex tasks that are becoming part of everyday activities in higher education. At the same time, diversification and internationalisation may challenge collaboration processes and communication demands. Speaking a shared language consistently could be a way of overcoming problems. Hence, this study focuses on the effect of shared language among academic staff on the relation between academic staff involvement in work processes and openness to diversity. This study draws on data from 489 Danish academic staff members in science departments of three universities. Results show positive associations between academic staff involvement and all openness-to-diversity variables (openness to informational, linguistic, value and visible diversity). Shared language had a positive effect on openness to surface level types of diversity (linguistic and visible) but no effect on openness to deep-level types of diversity (informational and value).

Introduction

Effectiveness of the academic staff as regards more and better teaching and research is becoming a top priority of higher education administrations. Universities and other post-secondary education institutions are human-capital intensive organisations and it has been shown that as much as 80 per cent of higher education cost is related to personnel

(Harvey *et al.*, 2006). Highly skilled academic staff has been argued to be a resource-demanding but necessary component of any well-functioning educational institution (Salaran, 2010). Nonetheless, a number of studies have shown that many higher education institutions fail to focus sufficiently on developing its human capital (Johnson, 1990; Wheelan and Kesselring, 2005; Perez *et al.*, 2012). In particular, many post-secondary educational institutions could benefit from developing the performance of the academic staff group and its interpersonal collaboration, meaning that group members will experience more effective and satisfactory work relationships (Sergiovanni, 1992). Such efforts might be worthwhile pursuing since research has shown that cohesive and well-functioning academic staff groups provide better results as regards work satisfaction, academic staff performance and student achievements (Barth, 1990; Wheelan and Tilin, 1999; Wheelan and Kesselring, 2005).

While the performance of the academic staff group is as important as ever, the academic staff could be facing challenges. Austin (2003) argued that the past reality of a homogeneous academic staff composed of native, white men is rapidly phasing out in the new millennium. Accordingly, the increasing diversification of higher education staff could put new pressure on efforts to improve academic staff group functioning (Keller, 2001; Young and Brooks, 2008). This development is driven by demographic changes (Eddy and Gaston-Gayles, 2008), by the emergence of an international academic labour market (Van De Bunt-Kokhus, 2000; Gappa *et al.*, 2007; Mamiseishvili and Rosser, 2010) and by an increasing numbers of international students (Kuznetsov and Kuznetsova, 2011; Kelly and Moogan, 2012). However, although academic staff diversity may lead to problems, these may well be possible to overcome. For example, there are some indications that well-functioning groups of involved individuals accept each other's differences more readily than less well-functioning units (Hobman *et al.*, 2004). Hence, academic staff involvement in work processes could be relevant for dealing with diversity among employees in higher education.

Focus in this study is particularly on higher education institutions with a high number of international, foreign-born academic staff members. Since universities are investing more resources in hiring and retaining international academic staff, it is important to acquire more knowledge on this theme (Mamiseishvili, 2011). Still, however, there is very little research on the role of international academic staff and the few studies that do exist mainly focus on employee satisfaction and effectiveness. For example, Mamiseishvili and Rosser (2010) found that

international academic staff members were significantly more productive in research than their US citizen colleagues however less satisfied. Lauring and Selmer (2010a) found cultural diversity among university academic staff to be positively associated with performance. Similar findings were also made by Corley and Sabharwal (2007) and by Levin and Stephen (1999). Other studies have focused on discrimination of international academic staff. In a qualitative study, Skachkova (2007) found that foreign-born female academic staff members were rarely involved in academic administrative leadership. Moreover, their teaching credibility was continuously questioned and tested and they felt excluded from the networks of their peers. Manrique and Manrique (1999) studied immigrant academic staff of non-European origin in the USA and found that 38 per cent of the respondents felt they had been discriminated against by their colleagues or by administrators.

While international academic staff is an under-researched area, the role of language in academic staff groups is even less investigated (Maurer, 2001; Kooij *et al.*, 2008; Tange, 2010) despite the fact that language is known to be one of the most important factors for group functioning (Giles and St Clair, 1979; Lauring, 2008). Moreover, language issues are growing more important with the increasing complexity of academic staff tasks. Rapidly changing technologies and a dynamic growth and diversification of knowledge regarding multidisciplinary and multinational concerns have made the need for collaboration more important than ever before as individuals cannot handle all work processes by themselves (Kanzler, 2010; Da Silva and Davis, 2011). This makes communication in a *lingua franca* an important factor (Lee and Bozeman, 2005). Add to this, a link between sharing a language and being diversity-minded has been proposed in conceptual articles (Maznevski and Chudoba, 2000; Harzing and Feely, 2008; Jonsen *et al.*, 2011). Frequent communication could lead to positive group processes that may well increase the frequency of communication as a virtuous circle (Lauring and Selmer, 2010b; Jonasson and Lauring, 2012). Hence, language use in academic staff groups may influence individuals' attitudes towards each other's dissimilarities.

Conceptualisation and theory

Academic staff involvement

It is widely agreed that well-functioning academic staff groups and interpersonal collaboration is positively associated with student achievement and more productive higher education in general (Johnson,

1990; Brett *et al.*, 2006; Kuznetsov and Kuznetsova, 2011; Kelly and Moogan, 2012). It is assumed that effective academic staff groups will develop more relevant improvement plans and that the academics would have both the individual power and the loyal support to implement those plans both school-wide and in their classrooms (Wheelan and Tilin, 1999). Based on this idea, academic staff teamwork has become more prevalent in many higher education institutions (Wheelan and Kesselring, 2005). In this article a well-functioning academic staff group is perceived/defined as one where individual members feel they are involved in decision-making and discussions (Mor-Barak *et al.*, 1998). Hence, academic staff involvement relates to individuals' involvement in task-oriented processes, such as communication and collaboration and the degree of involvement in work processes felt by members (Hobman *et al.*, 2004).

Openness to diversity

Openness to diversity in international university departments can be defined as an attitude of awareness and acceptance of both similarities and differences that exist among academic staff members (Sawyerr *et al.*, 2005). A university where the academic staff are open to diversity represents an environment in which individuals respect the views of those who are different and where activities are organised based on work-related considerations rather than on group members' demographic similarities (Hobman *et al.*, 2004). In the current study, openness to diversity is examined on the following four dimensions: informational, linguistic, value and visible diversity. *Informational diversity* represents the variations in knowledge among university academic staff often described as the true value of diversity (Ely and Thomas, 2001). When individuals are open to informational diversity, they embrace different information and different sources of knowledge available within the group (Homan *et al.*, 2007). *Linguistic diversity* represents the communicative dimension of dissimilarity, which is often ignored in diversity studies (Jonsen *et al.*, 2011). Being open to linguistic diversity, university academic staff accept each other's varying language proficiency, speech styles, vocabulary and accents. *Value diversity* is related to variations in embedded norms and perceptions (Tyran and Gibson, 2008). Openness to other individuals' different values is tolerance for differences in opinions, world view and cultural behaviours. Finally, *visible diversity* is a readily detectable type of demographic heterogeneity (Harrison *et al.*, 1998). University academic staff members who are open to visible diversity show no discriminatory attitudes towards those who

look different, for example are of a different gender, race, age group, or dress in a different way. While informational and value diversity are deep-level types of diversity, linguistic and visible diversity has surface-level characteristics (Shaw and Barett-Power, 1998).

Shared language

In this study shared language generally refers to communication in English regardless of the native language of the country or that of the individuals communicating. In internationalised organisations, such as the ones in the higher education sector, language use is of considerable importance for group functioning (Canado, 2010). Although a language can bind us together, not everybody speaks the same language. Conceptual articles have argued that multi-linguistic organisations may benefit from using a *lingua franca* in daily interaction (Crystal, 1997; Feely and Harzing, 2003). A shared language has been proposed to increase the frequency of communication in organisations and it reflects similarities in how group members interpret, understand and respond to information provided by peers (Triandis, 1960; Zenger and Lawrence, 1989). Educational studies indicate that academic staff from regions where English skills are generally low, for example foreign-born academic staff from the Middle East or Asians, may have particularly low levels of satisfaction (Wells *et al.*, 2007; Mamiseishvili and Rosser, 2010).

Theory

This study is based on social learning theory and the contact hypothesis. Social learning theory argues that individuals learn in social communities (Lave and Wenger, 1991). Participation and involvement in a social unit lead to learning of the group's practices and, as group members learn, their position in the community becomes more central. Hence, the processes of social learning and involvement in what has been termed a community of practice are inseparable (Brown and Duguid, 1991). Accordingly, as peripheral, dissimilar group members become more involved in group activities, they also gain more acceptance (Lave, 1993; Wenger, 1999). The contact hypothesis suggests that the more contact a person has with dissimilar others, the more positive his or her attitudes will be towards such persons (Amir, 1969). This study maintains that university academic staff members, who interact on a daily basis, will develop mutual openness to differences related to knowledge, speech, ethics and appearance (Saenz, 2010). Moreover, this positive effect will

be re-enforced when group members converse in a common, inclusive language.

Hypotheses

Academic staff involvement and openness to diversity

It has been argued that academic staff capable of joint work, such as sharing the responsibility of teaching, are more successful (Wheelan and Tilin, 1999). Moreover, joint work may well have implications for how individuals perceive each other and each other's differences (Hobman *et al.*, 2004). Tuchman and Jensen (1977) argued that groups at some stage establish internal patterns of interaction through which group members develop a level of attraction and cohesion to one another. Group members can even interact without feeling sympathetic toward each other. Haslam *et al.* (2000) maintained that the question that determines group affiliation is 'who am I?' rather than 'do I like these people?'. In heterogeneous settings it is always a question of whether individuals identify with other members of their work group or more with peers (on the basis of age, gender or ethnicity) outside the organisation. In line with social learning theory and the work of Brown and Duguid (1991), Alderfer and Smith (1982) argued that if the social boundaries of the work group are too permeable, academic staff members will involve themselves more deeply with similar peers outside the organisation and less strongly with internal group members. A tighter and more cohesive internal group structure, however, will result in more frequent interaction and more favourable peer perceptions.

It has been demonstrated that group members' contacts and collaboration result in more positive attitudes, collective problem-solving and shared interpretations that further bind group members together (Widén-Wulff *et al.*, 2008). When academic staff members are involved with other group members, they internalise group identification into their self-concept (Tajfel and Turner, 1979). Others have argued that there could be a positive association between a group's abilities to avoid conflicts and social problems and a favourable diversity climate (Cox, 1994). In a study of medical academic staff, Hobman *et al.* (2004) found a positive relation between group involvement and openness to visible and informational diversity. Antal and Richebé (2009) showed that collaboration among academics was anchored in positive emotions related to each other's different capabilities. Finally, Lauring and Selmer (2011) found that knowledge sharing led to more positive diversity

attitudes in heterogeneous university departments. Hence, university academic staff working well together in an integrated, mutually engaged group could feel more open towards each other despite of dissimilarities that might otherwise lead to stereotyping and prejudice. Accordingly, the first set of hypotheses can be presented:

Hypotheses 1a–d: Academic staff involvement has a positive association with openness to informational diversity (1a), openness to linguistic diversity (1b), openness to value diversity (1c) and openness to visible diversity (1d).

Shared language as a moderator

Variations in the languages we master hamper interaction with other nationalities. This is unfortunate since more and more communication and collaboration in educational organisations take place across national and linguistic boundaries (Dimmock and Chan, 2008; Mamiseishvili, 2011). Besides, language differences between individuals in a university setting may provide the basis for informal inclusion and exclusion as well a reduction of rhetoric power (Tange, 2010).

To ensure shared understanding, internal communication and a smooth information flow, most multicultural organisations have introduced the use of a common corporate language (Harzing and Feely, 2008). According to Zenger and Lawrence (1989), a shared language guides the interpretation, comprehension and response to information. If group members communicate by means of a shared language, they gradually develop a feeling of security, trust and experience that facilitates subsequent interaction (Mäkelä *et al.*, 2007). Hence, a shared language might improve communication thus allowing group members to get used to each other's differences and consequently improving incentives for further interaction. In line with the contact hypothesis (Amir, 1969), Caligiuri (2000) demonstrated that with increased cross-linguistic contact between individuals, more openness towards each other's dissimilarities would be expressed. Hence, continuous contact in a heterogeneous group is beneficial because it allows individual academic staff members to become conversant with, and better understand, the dialect and jargon of their counterparts (Maltz, 1997). Moreover, the consistent use of a common language may also diminish the effect of language-based group identity that could create social boundaries between different natural language speech communities (Giles *et al.*, 1977; Lauring, 2008). Hence, consistent use of English as a *lingua franca* among university academic staff might increase the positive effect

of group involvement on openness to diversity. Accordingly, the following can be hypothesised:

Hypotheses 2a–d: Shared language moderates the positive association between academic staff involvement and group openness to diversity. When the extent of shared language is high, academic staff involvement will have a stronger positive association with openness to informational diversity (2a), openness to linguistic diversity (2b), openness to value diversity (2c) and openness to visible diversity (2d), than when the extent of shared language is low.

Method

Target population

The data for this study were extracted from a large study targeting academics in science departments. These targets were judged as appropriate since science departments may attract scientists from abroad making them multicultural organisational units and suitable targets for this investigation. Moreover, academic staff members in science departments do not work academically with issues such as language, diversity and work groups consequently it makes good sense to choose this target group. The study was conducted in Denmark, which is a small country with a need to engage in international activities and, therefore, Danish universities constitute a good setting for studying globalisation effects in areas such as language use. Moreover, Denmark is one of the countries in the world with the most even division of the genders on the labour market. This, combined with the outspoken internationalisation of the country, makes Denmark particularly interesting for diversity research. A database of email addresses of science department academics in three large universities was compiled. A total of 16 departments were targeted involving disciplines such as chemistry, physics, nanotechnology and pharmacology.

Data collection

The data was collected electronically. A commercial web survey software package was used to administer the questionnaire and participant responses were gathered automatically. The university affiliation of the investigators was identified as the official sender and the potential respondents were assured of anonymity and confidentiality. The survey was designed using advanced electronic mail functions that allowed participants to register their responses directly onto the form that fed a

database. A total of 1,022 academics were invited to participate in the survey and, eventually, 489 responses were received amounting to a response rate of 47.8 per cent.

Sample

The average age of the academics was 37.05 years (SD = 11.34) and on average, they had a period of employment of 7.59 years with their respective department (SD = 9.19). The majority of the respondents were male (71.5%), associate or assistant professors (51.1%) and Danish citizens (62.9%) (Table 1). Hence, a substantial minority were foreign nationals (37.1%), where respondents from non-EU countries made up 16.7 per cent and academics from EU countries other than Denmark represented 20.4 per cent of the sample. The number of respondents from each department ranged from 9 to 54 and the share of foreign nationals among the departments ranged from 14.3 per cent to 57.1 per cent. Accordingly, each of the departments in the sample had multicultural characteristics.

Instrument

Group openness to diversity was represented by four concepts: openness to informational diversity, openness to linguistic diversity, openness to value diversity and openness to visible diversity. All measures assessing the four constructs of openness to diversity used the same seven-point scales and response categories ranging from (1) 'strongly disagree' to (7) 'strongly agree'. Other concepts measured included academic staff involvement and shared language.

TABLE 1
Background of the sample (*n* = 489)

Background variables	Frequency[a]	Percentage
Gender:		
Male	344	71.5
Female	137	28.5
Position:		
Professor	47	9.6
Associate/assistant professor	250	51.1
Ph.D. Student	192	39.3
Nationality:		
Non-EU	78	16.7
Non-Denmark EU	93	20.4
Denmark	287	62.9

[a] Frequency totals may be less than 489 due to missing values.

Group openness to diversity

Openness to informational diversity was measured by a two-item scale adapted from Hobman *et al.* (2004). Sample item: 'In my department, members enjoy doing jobs with people from different professional backgrounds and/or work experience' (*alpha* = 0.87). Chronbach's *alpha* indicates to what extent a scale is reliable and the minimum acceptable level is 0.70 (Nunnally, 1978).

Openness to linguistic diversity was assessed by a four-item scale by Lauring and Selmer (2012b). A sample item was: 'Department members enjoy doing jobs with people even if there are language barriers' (*alpha* = 0.76).

Openness to value diversity was measured by a two-item scale adapted from Hobman *et al.* (2004). A sample item was: 'In my department, members make an extra effort to listen to people who hold different work values and/or motivations' (*alpha* = 0.92).

Openness to visible diversity was measured by a two-item scale adapted from Hobman *et al.* (2004). Sample item: 'In my department, members enjoy doing jobs with people of different ethnicity, gender, and/or age' (*alpha* = 0.82).

Academic staff involvement

Academic staff involvement was assessed by a five-item, five-point Likert-type scale adapted from Mor-Barak *et al.*'s (1998) measure of work group involvement. Response categories ranged from (1) 'strongly disagree' to (5) 'strongly agree'; sample items: 'Department members make me feel a part of decisions' and 'I feel part of informal discussions in the department' (*alpha* = 0.88).

Shared language

Shared language was measured by two direct questions (Roberts and O'Reilly, 1974): 'Over the last two weeks, how much (in percentage) of the time did you speak English in (1) Work-related communication? (2) Personal communication?' (*alpha* = 0.84).

Control

Size of department was included as a control variable and measured by the direct question: 'How many academic staff members are currently employed in your department?' Controlling for the size of the department seems reasonable since it is not unlikely that academic staff

involvement, shared language and openness to diversity will be different in large academic departments than small university departments (Smith *et al.*, 1994).

Data analysis techniques

Sample means, standard deviations and zero-order Pearson correlations were computed for all variables of the study (Table 2). The hypotheses were formally tested by way of hierarchical multiple regression. To reduce multicollinearity, the lower-order terms used in the interaction (academic staff involvement and shared language) were standardised prior to analysis and the interactions that emerged were plotted, one standard deviation above the mean as the high mean and one standard deviation below the mean as the low mean (Chang *et al.*, 2010).

Findings

All Cronbach's *alpha* reliability estimates exceeded 0.70, with an average reliability of 0.85. One-sample *t*-tests showed that the mean scores for all the variables depicting openness to diversity; openness to informational diversity (t = 39.12, $P < 0.001$), openness to linguistic diversity (t = 51.26, $P < 0.001$), openness to value diversity (t = 26.73, $P < 0.001$) and openness to visible diversity (t = 39.52, $P < 0.001$) were all significantly higher than the midpoint of their respective scales. This indicates that the respondents generally agreed that they felt open to

TABLE 2
Means, standard deviations and correlations among the variables

Variables	Mean	SD	1	2	3	4	5	6	7
1. Openness to informational diversity	5.06	1.16	(0.87)						
2. Openness to linguistic diversity	5.23	0.95	0.43	(0.76)					
3. Openness to value diversity	4.52	1.24	0.64	0.42	(0.92)				
4. Openness to visible diversity	4.91	1.05	0.66	0.54	0.60	(0.82)			
5. Academic staff involvement	3.83	0.73	0.49	0.49	0.43	0.45	(0.88)		
6. Shared Language (per cent)	42.32	31.49	0.20	0.06	0.31	0.14	0.05	(0.84)	
7. Size of department	76.77	24.56	0.30	0.20	0.24	0.23	0.12	0.21	1.00

Note: $475 < n < 489$ due to missing answers. Cronbach's alpha reliability estimates are in parentheses. For all correlations above 0.11, $P < 0.01$; above 0.19, $P < 0.001$ (2-tailed).

informational, linguistic, value and visible diversity. The significant associations between size of department and all of the four dependent variables; openness to informational diversity (r = 0.30, $P < 0.001$), openness to linguistic diversity (r = 0.20, $P < 0.01$), openness to value diversity (r = 0.24, $P < 0.001$) and openness to visible diversity (r = 0.23, $P < 0.001$), indicate the need to use size of department for control purposes in the regression analyses.

The hypotheses were formally tested by way of hierarchical multiple regression (Table 3). The control variable, size of department, was entered in Step 1. This resulted in significant associations with all the criterion variables. There was a positive association between size of department and openness to informational diversity (beta = 0.22; $P < 0.001$), openness to linguistic diversity (beta = 0.13; $P < 0.01$), openness to value diversity (beta = 0.13; $P < 0.01$) and openness to visible diversity (beta = 0.14; $P < 0.001$). In Step 2, the predictor variable was entered. This again produced significant associations with all the criterion variables, explaining between 16 to 21 percent of the variance in those variables. There were positive relationships between academic staff involvement and openness to informational diversity (beta = 0.45; $P < 0.001$), openness to linguistic diversity (beta = 0.47; $P < 0.001$), openness to value diversity (beta = 0.40; $P < 0.001$) and openness to visible diversity (beta = 0.43; $P < 0.001$). As predicted, a positive relationship was found between academic staff involvement and all openness-to-diversity variables. In Step 3, the moderator variable was entered. This resulted in significant associations with three of the four criterion variables, explaining between 1 and 7 per cent of the variance of those variables. Positive associations between shared language and openness to informational diversity (beta = 0.14; $P < 0.001$), openness to value diversity (beta = 0.28; $P < 0.001$) and openness to visible diversity (beta = 0.11; $P < 0.01$) were found. In Step 4, the interaction term was entered. This resulted in significant relationships with two of the criterion variables, explaining 1 per cent of the variance in openness to linguistic diversity and 2 per cent of the variance in openness to visible diversity. There were positive relationships between the interaction term, academic staff involvement x shared language and openness to linguistic diversity (beta = 0.12; $P < 0.01$) as well as with openness to visible diversity (beta = 0.15; $P < 0.001$). This means that shared language moderated the positive association between academic staff involvement and group openness to diversity in those two respects. All F-values were statistically significant, indicating a proper fit between the regression model and the data making the analyses meaningful.

TABLE 3

Results of hierarchical regression for effects of academic staff
involvement on openness to diversity moderated by shared language[a]

| | Group openness to diversity | | | |
	Openness to informational diversity β	Openness to linguistic diversity β	Openness to value diversity β	Openness to visible diversity β
Step 1 (Control)				
Size of department	0.22***	0.13**	0.13**	0.14***
R	0.30	0.20	0.24	0.23
R² (adjusted)	0.09	0.04	0.05	0.05
F	46.60***	19.59***	28.33***	26.37***
Step 2 (Predictor)				
Academic staff	0.45***	0.47***	0.40***	0.43***
Involvement (SI)				
R	0.54	0.50	0.47	0.48
Change in R²	0.20	0.21	0.16	0.18
R² (adjusted)	0.29	0.25	0.21	0.23
F	97.17***	81.05***	65.55***	70.40***
Step 3 (Moderator)				
Shared language (SL)	0.14***	0.02	0.28***	0.11**
R	0.55	0.50	0.53	0.49
Change in R²	0.02	0.00	0.07	0.01
R² (adjusted)	0.30	0.25	0.28	0.23
F	70.25***	53.93***	63.16***	49.16***
Step 4 (Interaction)				
SI x SL	0.01	0.12**	0.05	0.15***
R	0.55	0.52	0.54	0.51
Change in R²	0.00	0.01	0.00	0.02
R² (adjusted)	0.30	0.26	0.28	0.25
F	52.58***	43.37***	47.91***	41.03***

[a] Regression coefficients are standardized; All coefficients are from the last model of the analyses.
** $P < 0.01$; *** $P < 0.001$; two-tailed.

To explore the character of the moderating relationships, the significant interactions were plotted in Figures 1 and 2. These figures reveal that shared language moderates openness to linguistic diversity and openness to visible diversity in the same way. When the degree of shared language is high, academic staff involvement has a stronger positive association with these two variables than when it is low.

For Figure 1, tests of the simple slopes indicated that the linkage between academic staff involvement and openness to linguistic diversity
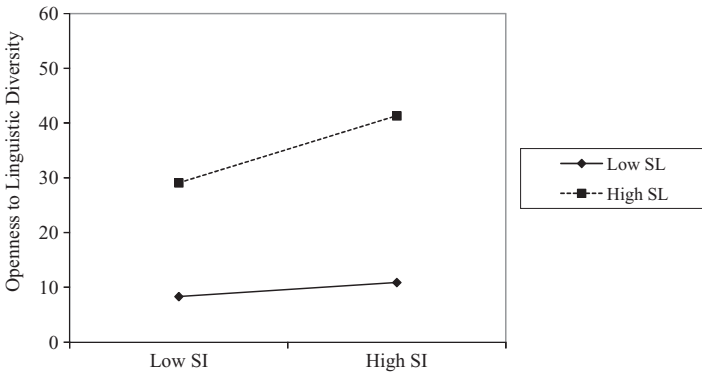
Figure 1 Moderation of the effect of academic staff involvement (SI) on openness to linguistic diversity by shared language (SL)
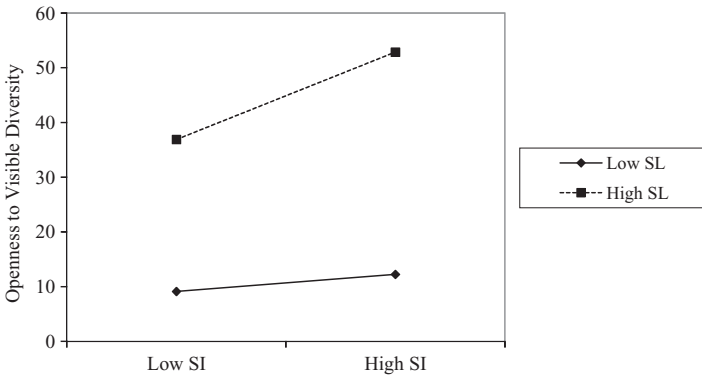

Figure 2 Moderation of the effect of academic staff involvement (SI) on openness to visible diversity by shared language (SL)

was significant both when the extent of shared language was high (t = 4.44, $P < 0.001$) and low (t = −2.03, $P < 0.05$). Similarly, in the case of Figure 2, simple slope tests suggested that the association between academic staff involvement and openness to visible diversity was significant both when the degree of shared language was high (t = 3.74, $P < 0.001$) and low (t = −1.97, $P < 0.05$)

These findings provide support for hypotheses H1a-d, H2b and H2d. Hypotheses H2a and H2c were not supported.

Openness to visible and linguistic diversity can be argued to represent openness towards surface-level heterogeneity as being readily detectable

indicators of dissimilarity (Shaw and Barett-Power, 1998). Hence, according to the current study, sharing a common language seems to increase the positive effect of academic staff involvement on attitudes towards surface-level diversity dimensions, while having no effect on deep-level types of diversity such as information and value diversity. This makes good sense since repeated interaction and involvement with individuals who, for example, speak with a different accent or are of a different race or gender may reveal that stereotypes do not hold true. In other words, using a common language in a well-integrated, committed academic staff group will make individuals accept diversity that is easy to spot but that does not have a direct effect on work processes. However, improved communication does not help when differences are deep-rooted. Hence, the findings of this study also seem to confirm that deep and surface-level types of diversity should be perceived as distinct and treated differently (Bowers, 2000; Webber and Donahue, 2001; Horwitz and Horwitz, 2007). Furthermore, it is also worth noting that since the moderating role of shared language was not found for openness to the deep-level types of diversity, it is necessary to look beyond shared language if changes in openness to deep-level types of diversity are to be achieved.

It is also interesting to note that although shared language had no direct association with openness to linguistic diversity it had an indirect association with that variable through the interaction term, academic staff involvement x shared language, only influencing openness to linguistic diversity through another variable. This effect may result from the fact that speaking the same language could also be perceived as less openness to linguistic diversity, for example, if native speakers (Danish) feel they are forced to communicate in a second language (English). In the case of openness to visible diversity, shared language both had a direct and indirect relationship with this variable. This means that shared language in this case could influence openness to visible diversity in two ways.

The confirmation of the hypotheses is generally in line with other similar studies. Although these studies focused on different group antecedents, they found positive associations between a variety of interaction processes and open dissimilarity attitudes. Mitchell *et al.* (2009) found a positive association between rigorous debates and openness to cognitive diversity. Hobman *et al.* (2004) found a negative relation between group involvement and limited openness to informational and visible dissimilarity. In a university setting, Li *et al.* (2010) found knowledge sharing activities to be associated with improved group relations. Similar

results were found by Lauring and Selmer (2011), also in a university setting.

Limitations and implications

Some potential weaknesses in this investigation might have biased the findings. First, the response rate of 47.8 per cent does not appear to raise any serious concerns but the extent to which this outcome has biased our results cannot be assessed with certainty.

Second, the sample of science department academics in three large universities in Denmark may be relevant representatives of members of international educational organisations. However, the degree to which the results of this study may be generalizable to other countries is not clear.

This study responds to a scarcity of studies on internationalisation and language use in the higher educational sector. In particular, this study focused on the moderating effect of shared language on the relation between academic staff involvement and openness to diversity. The findings give rise to several theoretical and practical implications as well as suggestions for further research.

This is the first study to suggest that university academic staff members' involvement in their group has a positive effect in their openness to diversity. The inclusion of shared language as a variable in the study is also novel to the educational field. Consequently, the results of the study provide novel insights to be integrated in the theoretical discussion in the literature on the management of human resources in international higher education organisations.

From a practical standpoint, the research may have several implications for university human resource strategies. The results indicate that university managers may want to focus on increasing internal academic staff involvement if the university aims to promote positive diversity attitudes (Lindholm, 2003; Riyad, 2010). Moreover, the use of a *lingua franca* in interaction can help increase positive perception of surface-level types of heterogeneity further, thus overcoming negative stereotyping.

The head of department and other leading departmental members could use frequent meetings and seminars to encourage interaction and mutual involvement that would have positive consequences for dissimilarity perceptions (Locks *et al.*, 2008; Bowman, 2010). This should improve the social climate as contact and interaction is known to decrease stereotyping and discrimination (Pettigrew, 1998). Social events to increase academic staff involvement could include

out-of-campus activities and activities that are not directly related to the work context.

Another way to promote academic staff involvement could be to use reward structures that emphasise the group's super-ordinate identity (Homan *et al.*, 2008). This could be promoted by rewarding groups on the basis of collective performance rather than for individual achievements. For example, with regard to scientific work, the inclusion of other department members in collaborative internal research projects should be seen as an advantage. With that in mind, more concretely, the gained internal value of a research publication to an individual should not be diminished as a result of more internal co-authors listed. The teaching of students could be organised in teams rather than by individual researchers. This would allow individual teachers to learn from each other and, thereby, also develop open attitudes to each other's dissimilarities. Also, the usefulness of collaboration with individuals of different backgrounds having different professional networks could be stressed. Finally, rewarding a group of diverse academics on the basis of collective performance may take the focus away from internal demographic dissimilarities.

In relation to the use of a shared language, the management of international educational organisations could focus on creating an environment supporting consistent common language use (often English) among group members. The encouragement of group members in international academic staff teams to communicate in English could be facilitated by first making individuals aware of the importance of inclusive language use, both from a communicative and a symbolic perspective (Lauring and Selmer, 2012a). Awareness, however, is not enough. Group members also need to have the necessary language proficiency in order to be able to communicate consistently in English. Language training may be needed to improve vocabulary, grammar and pronunciation. Finally, individuals should also be willing to engage in interaction with individuals speaking with different accents. Certain practices, such as mixing work groups, could also be helpful in increasing individuals' incentives for speaking to dissimilar others in the common language. If such initiatives are implemented, group members' contact to each other could increase, thus giving them an opportunity to improve language skills and develop connections to diverse peers.

Conclusion

This study has identified academic staff involvement as an important group process that increases positive dissimilarity attitudes and thereby

also the constructive use of the heterogeneity in the educational sector. The moderating effect of shared language was shown to affect openness to diversity positively in relation to surface-level traits (speech and appearance). Results showing a positive relation between academic staff involvement, shared language and openness to diversity are generally consistent with extant research findings. Future studies could examine whether these results are an indication of openness to deep-level diversities being differently linked to group processes or diversity attitudes compared to surface-level diversities. Overall, the findings of this study suggest that academic staff involvement and shared language policies should be highly prioritised by human resource managers in demographically diverse organisations. Possible interventions include social activities, language training, mixed work groups and collective reward structures.

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