Representative voice in different organizational contexts: a study of 40 departments of a Dutch childcare organization

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‘Representative voice’ can be defined as actions in which one or more speakers represent others when speaking up about a problem at the workplace or making a suggestion. The purpose of this paper is to introduce the concept of representative voice, assess the frequency of its occurrence and examine department characteristics associated with its frequency. We present a theoretical framework and develop and test hypotheses about the effects of characteristics of the departmental context on the frequency of representative voice. Our focus is on organizational design features, i.e. characteristics that can be directly implemented by management. Data on 40 departments of a large Dutch childcare organization suggested that representative voice occurred in most of the organization’s departments, although not frequently. Multilevel analyses showed that representative voice was best predicted by the presence of shared problems. Further, representative voice was more frequent in departments in which employees worked directly with clients (i.e. children), and in larger departments. Frequent contact with the department’s manager and among the department’s employees had no effect.

Keywords: contact frequency; hierarchical regression analysis; organizational design; representative voice; social dilemma

Introduction

‘Employee voice’, or ‘speaking up’, refers to actions in which employees point out problems at their workplace or make suggestions for improvements. Employee voice is considered an important feedback mechanism for organizations (Hirschman 1970; Morrison and Milliken 2000). Employees can alert the organization’s management to problems, thus allowing management to resolve them. They can also contribute ideas for solving or preventing problems, or for making improvements. For organizations, it may therefore be important to identify ways of stimulating employee voice.

Previous research has examined a broad range of factors that might affect employees’ likelihood of speaking up about problems (Dowding, John, Mergoupis and Van Vugt 2000; Detert and Burris 2007). Nevertheless, when looking to the literature on employee voice for guidance on how to stimulate voice, managers may find it of limited practical use. Firstly, findings are often inconsistent from study to study, and in many studies the variance explained remains low (LePine and Van Dyne 1998). Secondly, the focus has been on employee personality (Premeaux and Bedeian 2003), ‘soft’ interpersonal or cultural factors such as organizational norms or management style (Dutton, Ashford, Lawrence and Miner-Rubino 2002; Detert and Burris 2007), or occasionally, large-scale...
contextual factors such as industry sector or firm size (Ngo, Tang and Au 2002), rather than on organizational design features that can be directly implemented by management.

Resolving the inconsistencies between findings in previous studies has been a key concern in research on employee voice. Differences in conceptualization and measurement of voice are one possible explanation (Withey and Cooper 1989; Saunders, Sheppard, Knight and Roth 1992; Olson-Buchanan and Boswell 2002; Luchak 2003). Most importantly, perhaps, antecedents may differ depending on the content of voice (e.g. making suggestions vs. pointing out problems) or ways of speaking up (e.g. informally vs. using formal grievance procedures). However inconsistencies between studies using the same scale (e.g. Withey and Cooper 1989, Studies 1 and 2) suggest that these distinctions may not be sufficient.

Here, we propose a different explanation. This is based on the idea that under certain circumstances, employees may coordinate their actions. That is, employees may speak up not only for themselves but also in the name of one or more colleagues. If indeed one employee speaks up for himself as well as for others, this may explain why these others do not speak up themselves in spite of, for instance, high dissatisfaction or good relations with management. To some extent, this may account for some of the inconsistent effects in previous studies.

We propose to use the term ‘representative voice’ to refer to actions in which one or more speakers represent other colleagues in the same team, department or organization when speaking up about a problem or making a suggestion. We use the term ‘individual voice’ to refer to the form of voice typically discussed in the literature, namely the actions of individual employees speaking up about a problem or making a suggestion without involving others. We use ‘employee voice’ as a general term covering both individual and representative voice. In principle, representative voice can be directed at various targets, including supervisors (bottom-up), peers (same level) or subordinates (top-down). In this paper, we examine what might be the most typical case, namely representative voice to a department’s direct supervisor, with one person acting as representative.

The purpose of this paper is to introduce and explore the concept of representative voice in order to provide a basis for future research on this topic. Our study was guided by two research questions. Firstly, does representative voice indeed occur? Secondly, how can organizations stimulate representative voice through particular organizational design features, such as office location, on-site presence or meeting patterns? To address these questions, we describe the frequency of representative voice in different departments, sketch a theoretical framework for explaining representative voice, and develop and test hypotheses about the conditions under which representative voice occurs in a department. In brief, we argue that for representative voice to occur, both a motivation problem and a coordination problem must be solved and that department characteristics can contribute to solving both. We focus on organizational design features, that is, aspects of the organizational context that can be directly implemented by management. They are key aspects of the organizational context, of particular interest to managers, as well as relatively easy to observe and compare across settings. Our analyses are based on department-level data from an organization-wide representative employee survey and telephone interviews with department managers from a large child-care organization in the Netherlands.

We start with a literature review. We then present our theoretical framework and develop hypotheses about the conditions under which representative voice occurs in a department. We describe our data collection methods and present the results, and conclude with a discussion of our findings and implications for future research.
Representative voice in previous research

Although current theoretical and empirical work does not explicitly exclude representative voice, it does not seem to have received much attention either. An exception is Lazega (2001, chap. 7), who analyses factors affecting the choice of a particular representative in representative voice among peers.

Research on employee voice has hardly considered representative voice; it typically examines the behaviour of individuals acting on their own, that is, it is assumed that employees experiencing a problem will either speak up themselves or remain silent. Occasionally, reference to representative voice is made in definitions and measurements of voice. Representative voice is arguably included in Hirschman’s (1970, p. 30) broad definition of voice, as well as in definitions going back to his work (e.g. Farrell 1983; Withey and Cooper 1989). Although definitions from the organizational citizenship behaviour tradition of research on voice typically focus on individuals’ own behaviour, measures sometimes include items referring to respondents’ encouraging others to speak up (Moorman and Blakely 1995; Van Dyne and LePine 1998) or items that may include respondents’ speaking up on behalf of colleagues (Van Dyne and LePine 1998; Premeaux and Bedeian 2003). Parker’s (1993) measure of ‘reformist dissent’ combines items measuring individual voice with items describing representative voice (e.g. ‘head the delegation [to the hospital administration]’). However, these items are not considered separately.

In theoretical discussions, the idea that one person may speak up for others is occasionally mentioned. Hirschman noted that employees may not speak up themselves if they expect that ‘someone will act or something will happen to improve matters’ (1970, p. 78, emphasis in the original). Graham (1986, p. 40), referring to Darley and Latané (1968), argued that the more people observe a problem, the less responsible each of them will feel for taking action. Similarly, Withey and Cooper (1989, p. 535) suggested that even when employees perceive a problem, they may not speak up if they think that one of their colleagues will do so. Empirical studies occasionally measure whether an issue has already been reported by others (e.g. Near, Rehg, Van Scotter and Miceli 2004). These arguments reflect the situation described by social dilemmas in game theory, such as the volunteer’s dilemma (Diekmann 1985).

Collective forms of voice – notably cases of several individuals speaking up together as a group – have been considered in research in other areas, such as political protests (Dowding et al. 2000), rather than in research on employee voice (for an exception, see Golden 1992). At a more general level, forming ‘coalitions’ or ‘involving others’ are included as strategies in research on issue selling and influence tactics (e.g. Kipnis, Schmidt and Wilkinson 1980; Piderit and Ashford 2003). However, the form that such involvement takes is not specified. Research on worker solidarity examines informal forms of collective action, along with more formal collective action through unions (e.g. Zetka 1992; Hodson, Welsh, Rieble, Jamison and Creighton 1993; Dixon and Roscigno 2003). Hodson (1996, p. 724) characterizes worker solidarity as being ‘based on the willingness of workers to defend each other in the face of assaults, usually from management but sometimes from other groups of workers or from customers’. Although this does not exclude representative voice, examples of representative voice are mentioned infrequently (e.g. Fantasia 1988, pp. 97–98; Tucker 1993, pp. 31–32) and do not seem prominent in the discussions.

Collective forms of employee voice have also been considered in research on union and non-union employee representation, which examines formal institutions pertaining to employee–management relations (e.g. Freeman and Medoff 1984; Freeman, Boxall and Haynes 2007; Gollan and Wilkinson 2007). In the past, the focus has been on unions
and questions of workers’ influence on decision making. More recently, there has been an increasing differentiation in the forms of collective voice considered (Brewster, Croucher, Wood and Brookes 2007; Bryson, Gomez, Kretschmer and Willman 2007, p. 398; Freeman et al. 2007; Wilkinson, Dundon and Grugulis 2007, p. 1284; Willman, Bryson and Gomez 2007, p. 1326). In some studies, terms such as ‘representational’ or ‘representative’ voice are used to refer to such formal institutions (Luchak 2003; Taras and Kaufman 2006; Brewster et al. 2007; Freeman et al. 2007). The focus of this research is on formal arrangements and procedures for employee voice directed at top management about issues that are of collective interest to employees, especially wages, terms of employment and job security. By contrast, representative voice, as we define it, involves formal or informal coordination between two or more employees within one organization or, on an even smaller scale, within a team or department. In the context of countries such as the Netherlands, this excludes union voice. Further, representative voice can concern a variety of issues including, but not limited to, those addressed in union and non-union employee representation.

### Representative voice: a theoretical framework

Research on employee voice has provided a theoretical framework for explaining individuals’ decision to speak up. We propose that this framework will apply to representative voice as well.

Like employee voice, we consider representative voice the outcome of a deliberate evaluation of its benefits and costs (Morrison and Phelps 1999). The desire to solve a problem, or, more generally, to improve the status quo provides the trigger for voice (Hirschman 1970; Miceli, Near and Dworkin 2008). The benefits of voice then depend on the pervasiveness of the problem and on the effectiveness of voice as a first step towards resolving it. The costs of voice include ‘direct’ costs related to the time and effort invested (Withey and Cooper 1989; Zhao and Olivera 2006) and ‘indirect’ costs of potential negative outcomes (Withey and Cooper 1989; Ashford, Rothbard, Piderit and Dutton 1998; Cortina and Magley 2003; Milliken, Morrison and Hewlin 2003), notably informal sanctions (e.g. negative reputation, social isolation) and formal sanctions (e.g. negative performance evaluations, loss of job).

It is the sharedness of interests that motivates collective action: collective action is unlikely in reaction to a problem facing an individual employee, unless, of course, others make it ‘their’ problem as well. However, shared interests may not be enough. Representative voice also requires the solution of a social dilemma. Formally, the decision to speak up about a problem faced by oneself and others is similar to the choice facing actors in social dilemma games such as the volunteer’s dilemma (Diekmann 1985), the second-order free-rider dilemma (Heckathorn 1988) or the specialized-labour game (Ellickson 1991). Assuming that several employees face a shared problem, speaking up will benefit all of them, but the speaker will bear the costs. Individuals are therefore faced with a dilemma: each of them would like to see the problem addressed, but each would prefer somebody else to incur the cost of speaking up. In this situation, some sort of coordination, or mechanism for selecting a representative, may be needed (Diekmann 1985; Richards 2001).

### Representative voice through organizational design?

Here we examine representative voice to the department’s manager, i.e. a department’s direct supervisor. Our focus is on the department level, rather than the individual level.
Thus, we ask what department characteristics make representative voice more likely within a particular department. In addition to the practical relevance of this question for managers, it is of theoretical importance as well (Rousseau and Fried 2001; Johns 2006).

With regard to effects of the organizational context on employee voice, the prevalent theoretical framework is based on a ‘sensemaking’ perspective (Morrison and Milliken 2000; Olson-Buchanan and Boswell 2008). The idea is that employees look for cues that allow them to assess whether voice will be effective, without negative consequences for themselves. Empirical research has tested selected aspects of this framework. These include managerial practices affecting sensemaking, notably management style (e.g. Detert and Burris 2007), and features reflecting sensemaking, such as employees’ perceptions of organizational norms (e.g. Ashford et al. 1998). By contrast, although ‘hard’ organizational design features have been discussed theoretically (e.g. ‘organizational structures and policies’, Morrison and Milliken 2000), they are rarely examined directly in empirical work. Perhaps most frequently studied, often as control variables, are industry sector, occupation or type of job (Van Dyne and LePine 1998; Kidder 2002; Ngo et al. 2002; Detert and Burris 2007), the size of the organization or team (LePine and Van Dyne 1998; Ngo et al. 2002) and job characteristics such as autonomy, complexity or control (Frese, Teng and Wijnen 1999; Naus, Van Iterson and Roe 2007). The presence of formal voice procedures is sometimes included as part of the dependent variable, measured as ‘speaking up using a particular channel’ (Ngo et al. 2002; Olson-Buchanan and Boswell 2002). This relative neglect may be due to the theoretical focus on sensemaking, which perhaps directed attention to ‘soft’ context characteristics such as management style or norms.

Here we wish to draw attention to other important ways in which organizational design features – more specifically, department characteristics – can stimulate voice. Firstly, they can provide or constrain opportunities for speaking up. Opportunity structures have been found to have powerful influences on human behaviour (Blau 1977; Hedström 2005). They can not only affect the perceived benefits and costs of voice but also promote or hinder the necessary coordination. This may make them especially important for representative voice. Secondly, organizational design can promote or inhibit group identification and solidarity among employees, thus increasing employees’ willingness to act on behalf of their team or department (Graham 1991; Zetka 1992; Kiesler and Cummings 2002; Ellemers, De Gilder and Haslam 2004).

We focus on department-level organizational design features that seem particularly important in the context of representative voice: features affecting employees’ contact with their department’s manager and features affecting contact among employees in a department. We start with hypotheses derived from research on employee voice more generally and then turn to hypotheses concerning contact frequency. We propose that the former, together with contact with the department’s manager, will affect employees’ motivation, while contact among a department’s employees will contribute to the coordination required for representative voice.

**Shared problems**

While we consider the perception of a problem as the trigger for any form of voice, the form of voice will depend on the sharedness of the problem. For shared problems, representative voice will be preferred over individual voice because it is more efficient and, perhaps, less risky. Representative voice saves time and effort for both the employees and the manager. Because managers may pay more attention to concerns shared by several
employees, demonstrating a united position can also increase the effectiveness of voice. In addition, for those represented, representative voice is likely to involve lower risks than speaking up themselves, while the speaker may be able to count on his or her colleagues to provide more active support if necessary.

Although problems are hardly created intentionally by organizational design, once a problem occurs, organizational design will affect its sharedness. In this sense, the sharedness of a problem can be considered an organizational design feature. More specifically, where employees are dependent on each other to accomplish their tasks, a problem affecting one of them will have repercussions for others: it becomes a shared problem. In addition, the interaction among employees entailed by task interdependence promotes solidarity and identification with their group, making it more likely that individual members are willing to act on its behalf (Graham 1991; Zetka 1992; Hodson 1996; Ellemers et al. 2004). We therefore expect:

**Hypothesis 1:** The larger the percentage of employees in a department who are affected by problems, the higher the frequency of representative voice.

**Contact with clients**

Grant (2007) argued that jobs that give employees the opportunity to interact with clients, and to observe the impact of their work on clients, will increase employees’ motivation for helping these clients, even beyond their job requirements. We propose to extend this argument to representative voice. In departments where employees are directly working with clients, the problems experienced by employees can affect clients, either directly (e.g. lack of space) or indirectly (e.g. personal conflicts among employees). This will increase the seriousness and urgency of a problem in the eyes of employees, and, consequently, the benefits of speaking up about it. To prevent negative consequences for clients, employees may be more likely to speak up in response to a problem. Although variables such as industry sector, occupation or type of job have been examined, typically as control variables (Van Dyne and LePine 1998; Turnley and Feldman 1999; Detert and Burris 2007), to our knowledge, this hypothesis has not yet been tested for employee voice.

**Hypothesis 2:** In departments where employees directly work with clients, representative voice will be more frequent than in departments where employees do not directly work with clients.

**Contact with the manager**

Affecting employees’ perception of the riskiness and effectiveness of voice, the relation with management appears to be an especially salient factor in employees’ decision to speak up or not (Milliken et al. 2003; Piderit and Ashford 2003; Nembhard and Edmondson 2006). To date, research has focused on the quality of the relationship. Here, we examine the frequency of contact. This can be shaped directly by organizational design, for instance through manager’s contract hours, office location and patterns of regular meetings.

A manager’s closeness – both physical closeness and interaction frequency – has been associated with higher levels of trust, which in turn makes it possible for employees to engage in potentially risky activities such as speaking up to the manager (Nohria and Eccles 1992; Antonakis and Atwater 2002). For instance, in a meta-analysis, Podsakoff,
MacKenzie and Bommer (1996) found that managers’ spatial distance was significantly correlated with lower levels of supportive leadership, less use of contingent rewards and more use of noncontingent punishment. The latter suggests that for employees, sanctions may become less predictable and interaction with a distant manager becomes risky – perhaps especially in the case of ‘challenging’ behaviours such as voice (Van Dyne and LePine 1998). In addition, frequent contact with the manager provides more opportunities for speaking up, decreasing the costs of seeking out the manager; it also allows ‘picking the right moment’ to reduce the riskiness of voice (Ashford et al. 1998; Dutton, Ashford,  O’Neill and Lawrence 2001). Contact frequency therefore should increase the frequency of representative voice.

**Hypothesis 3:** The more contact there is with the department’s manager, the higher the frequency of representative voice.

**Contact among employees**

To our knowledge, design features affecting contact frequency among employees within a department, such as co-location, on-site presence or meeting patterns, have not yet been examined in relation to employee voice. However, this may be especially important in the case of representative voice.

For team processes and performance more generally, the importance of face-to-face contact that becomes possible through co-location, in particular, has received considerable attention over the past decade. This research suggests that in ‘virtual’ teams with little or no face-to-face interaction, it may be more difficult to create trust and team identification (Jarvenpaa and Leidner 1999; Fiol and O’Connor 2005). These, in turn, promote employees’ willingness to work towards group goals (Ellemers et al. 2004). This may include acting as representative of the group.

Similarly, research on worker solidarity (Zetka 1992; Hodson 1996; Dixon and Roscigno 2003) points to the importance of interaction as a basis of solidarity and, consequently, individuals’ willingness to contribute to the collective good. Frequent contact among individuals makes it possible for them to realize that they face a shared problem and to coordinate their response to it (Granovetter 1973; Diani and McAdam 2003). They may also develop norms for reacting to shared problems, along with positive and negative sanctions for (non)compliance with these norms (Coleman 1990). For instance, acting as representative could become part of the role of one of the group’s members. Such norms reduce transaction costs for agreeing on a representative and provide selective incentives to individual group members. We therefore hypothesize:

**Hypothesis 4:** The more contact there is among the members of a department, the higher the frequency of representative voice.

Contact frequency can also be affected by the number of employees in a department. Early studies on bystander intervention (Darley and Latané 1968; Latané and Darley 1968) showed that in experiments, subjects were less likely to report an emergency and were slower in reporting the emergency, the more others were present. This might be due to social influence (Latané and Darley 1968) or, alternatively, to ‘diffusion of responsibility’ (Darley and Latané 1968): individuals felt less personally responsible for taking action when others were present. Later studies, taking into account the cohesiveness of the group (e.g. Rutkowski, Gruder and Romer 1983), suggested that the decisive factor might be cohesiveness, rather than group size itself. Arguably these tend to be correlated in practice.
As pointed out by Olson (1965), in larger groups, the extent of contact between individual group members may be lower, while interest differences may be larger than in smaller groups. Consequently, collective action becomes more difficult. In line with this, we expect:

**Hypothesis 5:** The larger the number of employees in a department, the lower the frequency of representative voice.

**Research design and data collection**

To address our research questions, we used data on 40 departments of a large Dutch childcare organization. Our data came from several sources: telephone interviews with all of the organization’s managers who directly supervised one or more departments; personnel records provided by the organization; and a representative survey among 242 managers and employees. The unit of analysis was departments. Information on design features was provided by each department’s manager. Information on the frequency of representative voice and the presence of shared problems within a department came from department members’ reports in the survey.

**The organization**

At the time of data collection in spring 2009, the organization had about 60 departments, with about 700 employees in total. The organization was divided into a head office and several regional divisions, each comprising 7–19 departments. Each regional division was supervised by two regional managers. Each department was supervised by a department manager; responsibility for the content of children’s treatment lay with treatment coordinators. Departments differed with regard to the type of work carried out by employees, ranging from administration and maintenance to day care, residential units and at-home coaching of parents and foster families. Some departments were subdivided into teams; some were dispersed over several locations.

The organization had established several forms of formal employee representation and participation, notably a works council, standing occupation-based committees and work groups. Interviews with managers and employees suggested that these were used for addressing organization-wide issues. For everyday problems affecting a particular department, voice to the department’s manager was preferred. Therefore, although organization-level institutions provided alternative channels for voice and possibly reduced the overall level of all forms of employee voice to department managers, we expected this effect to be relatively small.

**Defining departments**

Departments were identified based on three criteria. Firstly, departments had to be named units that were salient to respondents. This ensured that respondents had the same unit in mind when answering the questions. Secondly, it was important that respondents were aware of the problems facing their department and the behaviour of fellow department members. We assumed this would be most likely if they worked in the same building, or if there were regular meetings, at least once a month, where all members of the department participated. Finally, department members had to report to the same department manager. Taking the departments listed in the organization chart as a starting point, we checked in interviews with the department managers whether the latter two criteria applied. When they did not apply, we selected the unit at the next lower level that fulfilled our criteria.
Telephone interviews
We conducted structured telephone interviews with all of the 28 managers who directly supervised one or more departments (response rate 100%). This was to identify departments for our analyses and to obtain information on organizational design features for each department. We asked managers to describe the type of work, office location(s), contact among employees, supervision and meetings within their departments.

Interviews were conducted by the first author and lasted 10–45 minutes. Detailed notes were taken during each interview, and a detailed description was prepared immediately afterwards. Where possible, coding categories (such as for office location) had been defined before the interviews. This facilitated note-taking during the interview and ensured the comparability of the information.

Information from personnel records
The organization provided demographic information on all employees, including gender, age, hierarchical level, tenure, hours worked per week and type of contract, as well as department (and, where relevant, team) affiliation.

Employee survey
The frequency of representative voice and the presence of shared problems within a department were measured based on department members’ reports in the survey. Instead of relying on the department manager as a single observer, this allowed us to obtain multiple observations or ‘reports’ for each department. It provided insights into the accuracy and reliability of our data and allowed us to take potential differences between individual department members’ reports into account in the analyses. In contrast to the more easily observable organizational design features, this seemed important for measures of representative voice and shared problems (Schaeffer and Presser 2003). For all items, we included a ‘don’t know’ option as answer category. Although we expected this to reduce the number of cases available for the analyses (Schaeffer and Presser 2003, pp. 79–80), we felt it was most important to prevent answers based on guessing or random choice of response categories.

The sample included all managerial staff ($n = 37$), as well as a representative sample ($n = 205$) of about 30% of the organization’s non-managerial employees, stratified by department. Survey responses and personnel record data were matched by assigning each member of the sample a unique respondent ID number, which was written on the cover of his or her questionnaire. Respondents were assured that their responses would be treated confidentially.

To match respondents’ reports with departments, in the survey, respondents were given the list of departments as defined above and asked to indicate their department. Those affiliated with multiple departments were asked to check only one department and to answer subsequent questions with that department in mind.

In all, 134 employees and managers responded, a response rate of 55.4%. Excluding 22 respondents who were not affiliated with a particular department or provided ambiguous affiliations, and 33 respondents with missing values on one or more variables, we had an effective sample of 79 respondents for the hierarchical regression analyses.

Of these 79 respondents, 63 were women. Their average age was 40.2 years (SD = 10.5), their average tenure was 8.3 years (SD = 7.7). Most worked part-time, on average 30.3 hours per week (SD = 6.9); 82.3% had permanent contracts. Comparing
these 79 respondents to other employees in the organization, we found no significant differences except that others tended to work somewhat fewer hours per week (mean = 27.1, SD = 9.3; t(708) = 3.681, p < 0.001).

These 79 respondents provided information on 40 departments. These departments differed considerably regarding tasks, contact among employees, supervision and demographic composition. Comparing them to the organization’s other departments, we found no significant differences, except that other departments tended to have fewer employees (mean = 6.0, SD = 3.0; t(57) = −2.955, p < 0.01), and employees’ average age was somewhat higher (mean = 43.6, SD = 8.2; t(57) = 2.528, p < 0.05).

Individual-level and department-level scores for the scales measuring representative voice and shared problems were calculated in the following way. After checking that Cronbach’s alpha was sufficiently high to justify combining the items into a scale, we calculated individuals’ scores on a scale by taking the average of the items. For departments with multiple respondents, we then took the average of their scores to obtain department-level scores. To assess agreement and reliability of respondents’ reports about their departments, we examined intraclass correlation coefficients (Snijders and Bosker 1999, pp. 16–22; LeBreton and Senter 2008).

**Dependent variable**

The frequency of representative voice in a department was measured through department members’ reports in the survey. We used two items, written for this study, namely ‘How often did it happen in your department during the last 3 months that an employee spoke up about a problem to the manager on behalf of him/herself and colleagues?’ and ‘How often did it happen in your department during the last 3 months that an employee made suggestions for improvements to the manager on behalf of him/herself and colleagues?’

The items were written with the department, rather than the respondent, as referent (Klein, Danserau and Hall 1994). Given the nature of representative voice and the size of our sample, this seemed the most accurate way of measuring the frequency of representative voice within departments: with expected data from at most 30% of the employees of each department, aggregating respondents’ reports about their own behaviour to the department level might have led to mis-estimation of the frequency of representative voice within a department.

Answer categories were 1 = ‘never’, 2 = ‘once’, 3 = ‘several times’, 4 = ‘almost every week’ and 5 = ‘more frequently’. We chose a count measure, because we were interested in the frequency of representative voice, and to allow comparison between respondents’ reports within and between departments. Suspecting that representative voice might be a low-frequency behaviour, we chose the category labels to give higher differentiation at the lower end of the scale. Pearson’s r was 0.92 (p < 0.001).

Examining the resulting scale, we found that for the individual-level scores, the scale had a mean of 2.52 (SD = 0.84). Values ranged from 1.00 to 5.00; only four respondents had scores above 3. Department means ranged from 1.00 to 3.50, with a mean of 2.43 (SD = 0.75). Table 1 shows descriptive statistics per department.

Considering only the 22 departments with two or more respondents, the range of individuals’ scores within each department was 2 or less, with the exception of one department (range: 3.0; mean of range = 0.91, SD = 0.84). In seven departments, a range of zero suggested that there was complete agreement among respondents. The intraclass correlation coefficient was 0.21 (F(39,39) = 1.666, p = 0.058). Taken together, this suggested that there was considerable agreement within departments, although the
variation between individuals still had to be taken seriously. Therefore, we used multilevel analysis to test our hypotheses (see below).

**Independent variables**

*Shared problems* were measured with six items in the survey. Respondents were given a list of problems and were asked to indicate the percentage of employees within their department that had been affected by each during the last 3 months. The problems were selected based on a study by Milliken et al. (2003) and on interviews we conducted in the organization. The following problems were included: ‘problems with facilities and equipment’, ‘problems with procedures (including division of tasks and coordination)’,

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Notes: Based on data from 79 respondents.

a For departments with two or more respondents.

b Number of non-managerial employees in each department.

c Number of respondents reporting on each department.
problems with employee contracts, salary, benefits and terms of employment’, ‘lack of personnel or high work pressure’, ‘personal conflicts with managers or concern about their competence or performance’ and ‘personal conflicts with colleagues or concern about their competence or performance’.

We used a seven-point response format, with 1 = ‘nobody’, 4 = ‘about half’ and 7 = ‘everybody’. Cronbach’s alpha was 0.63. The intraclass correlation coefficient was 0.48 ($F(39,39) = 3.034, p < 0.001$).

In the telephone interviews, we asked managers to describe the work done by members of each department. We constructed a binary variable (‘Working with clients’) to distinguish between departments where employees worked directly with children (coded ‘1’), and other departments (coded ‘0’).

We used several organizational design features as indicators of the frequency of contact between the department’s manager and the employees of a department. Information on manager’s contract hours, or the number of hours a manager worked for the organization per week according to his or her contract, was obtained from personnel records. Information on a manager’s office location came from the telephone interviews. We asked managers to describe the location of their office in relation to the office(s) or workplace(s) of the members of their department. Answers were coded on a five-point scale, with 1 = ‘in different cities’, 2 = ‘in different buildings in the same city’, 3 = ‘in different parts of the same building’, 4 = ‘close together in the same building’ and 5 = ‘in the same room’.

Meetings between department managers and members of their department can be considered another indicator of the extent of contact between them. In the telephone interviews, we asked managers to describe the meetings held regularly in their departments. Based on this information, we constructed variables for different types of meetings to include in our analyses. These included regular meetings involving all members of the department, including the manager (‘Department meetings with manager’). This was measured as the number of hours spent on the most frequent of such meetings on average per month. Another variable measured the occurrence of one-on-one meetings between a department’s manager and individual employees. The variable was coded ‘0’ for departments where such meetings took place regularly less than three times a year, and ‘1’ if they were held more frequently.

As for contact with the manager, we used several organizational design features as indicators of the frequency of contact among the employees of a department. In the telephone interviews, we asked about the location of the office(s) or workplace(s) of the members of a department (‘employee location’). Answers were recorded on a five-point scale, using the same categories as for manager’s office location. We also asked managers to estimate how much of their worktime employees spent on average at a department’s location (‘employee presence’), measured as a percentage of employees’ total worktime. Further, we constructed a variable measuring regular meetings of all members of the department, where no manager or treatment coordinator was present (‘Department meetings without manager’). This was measured as number of hours spent on the most frequent of such meetings on average per month.

Information on department size, that is the number of non-managerial employees in a department, came from personnel records.

Information on demographic characteristics of non-managerial employees in each department came from personnel records. Based on this, we calculated for each department the percentage of women, employees’ average tenure, the percentage of employees with permanent contracts and the average number of hours employees worked per week.
We included one control variable, respondents’ *hierarchical position* in the organization, based on information from personnel records. It was coded ‘1’ for employees, ‘2’ for treatment coordinators and ‘3’ for managers.

Table 2 shows descriptive statistics for the independent variables. Table 3 shows the correlations among the variables included in the analyses.

### Analyses

To test our hypotheses, we conducted multilevel or hierarchical linear regression analyses (Snijders and Bosker 1999) with representative voice as dependent variable. This seemed most appropriate for the structure of our data, which included information from department members (‘level 1’) about their departments (‘level 2’). Rather than disregarding variation between respondents from the same department (e.g. by conducting an ordinary least squares (OLS) regression analysis of the department means), multilevel analysis allowed us to examine differences between departments, while taking into account potential variation between respondents’ reports about a department.

The variables included in the employee survey (representative voice, shared problems) were based on individuals’ responses. In the multilevel analyses, they were therefore considered individual-level (‘level 1’) variables. Our control variable, respondents’ hierarchical position, was an individual-level variable as well. The variables constructed based on telephone interviews and personnel records directly measured department characteristics and were therefore considered department-level (‘level 2’) variables.
Table 3. Correlations.

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<td>2 Shared problems&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>3 Working with clients</td>
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<td>-0.08</td>
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<td>-0.41**</td>
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<td>-0.41**</td>
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<td>-0.03</td>
<td>-0.06</td>
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<td>0.22</td>
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<td>-0.05</td>
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<td>-0.47**</td>
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<td>0.06</td>
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<td>0.24</td>
<td>0.54***</td>
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<td>15 Average hours per week</td>
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<td>0.01</td>
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<td>-0.02</td>
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<td>-0.59***</td>
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Notes: Department-level data for 40 departments.
<sup>a</sup>Department means calculated from data from 79 respondents.

*<i>p < 0.05, **p < 0.01, ***p < 0.001</i>.
Models were estimated in MLwiN (Rasbash, Browne, Healy, Cameron and Carlton 2009) using iterated generalized least squares (IGLS) estimation.

Because of the small number of cases, we did not calculate a complete model including all variables. Instead, we calculated one model for each set of variables. Model 1 was the so-called empty model. In Model 2, we added the control variable, respondents’ hierarchical position. Model 3 included variables measuring departments’ demographic characteristics. In Model 4, we added shared problems and working with clients to test Hypotheses 1 and 2. Models 5 and 6 included indicators of the frequency of contact with the manager and among employees, respectively, to test Hypotheses 3—5. Table 4 shows the results of the multilevel analyses.

Findings

Frequency of representative voice

Examining the department means, along with minimum and maximum scores, suggested that representative voice did occur in most departments, although it was not a frequent event (Table 1). In most departments, department means from 2.0 to 3.0 suggested that representative voice had occurred about ‘once’ or ‘several times’ in the 3 months before the survey. In one department, a mean of 3.50 suggested that it had occurred more frequently. In six departments, a mean of 1.0 suggested that there had been no representative voice in the previous 3 months.

Representative voice in different departments

There were considerable differences between departments, indicated by a relatively high department-level variance in Model 1 (Table 4: $\tau^2 = 0.15$, $SE = 0.11$). The intraclass correlation coefficient was 0.21. However, there was also much variation between individuals’ ‘reports’ about their departments ($\sigma^2 = 0.55$, $SE = 0.12$). The variance between individuals decreased when including respondents’ hierarchical position (Model 2: $\Delta \sigma^2 = -0.06$), whereas department differences became more prominent ($\Delta \tau^2 = 0.02$). Other individual demographic characteristics had virtually no effect. We therefore used only hierarchical position as control variable in subsequent models. As shown in Model 3, none of the variables measuring departments’ demographic composition had an effect on representative voice.

Hypothesis 1 predicted that the larger the percentage of people affected by problems in a department, the higher the frequency of representative voice. We found a positive correlation between the department means of shared problems and representative voice (Table 3: $r = 0.54$, $p < 0.001$; individual-level data: $r = 0.45$, $p < 0.001$). The effect remained strong in the multilevel analysis (Table 4, Model 4: $\gamma = 0.27$, $SE = 0.07$, $p < 0.001$). Additional analyses (not shown) showed that when including shared problems as level-2 variable (i.e. the department mean) rather than as level-1 variable (i.e. respondents’ reports about their department), the results were similar ($\gamma = 0.21$, $SE = 0.09$, $p < 0.05$; $\tau^2 = 0.08$, $SE 0.08$; $\sigma^2 = 0.45$, $SE 0.09$; $-2$ loglikelihood = 171.91). This supported Hypothesis 1.

Hypothesis 2 predicted that the frequency of representative voice would be higher in departments where employees worked directly with clients. We found a positive correlation between working with clients and the department means of representative voice (Table 3: $r = 0.56$, $p < 0.001$), and a significant effect in the multilevel analysis (Table 4, Model 4: $\gamma = 0.69$, $SE = 0.27$, $p < 0.05$). This supported Hypothesis 2.
Table 4. Results from multilevel analyses with representative voice as dependent variable.

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
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<td>2.81 (0.18)</td>
<td>4.11 (1.36)</td>
<td>1.25 (0.34)</td>
<td>2.64 (1.41)</td>
<td>2.32 (0.63)</td>
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<td>-0.24* (0.11)</td>
<td>-0.16 (0.09)</td>
<td>-0.24* (0.11)</td>
<td>-0.27* (0.11)</td>
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<td>Percentage of women</td>
<td>0.00 (0.01)</td>
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<tr>
<td>Average tenure</td>
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<td>-0.01 (0.04)</td>
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<td>Percentage with permanent contract</td>
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</tr>
<tr>
<td>Average hours per week</td>
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<td>Shared problems*</td>
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<td>0.27*** (0.07)</td>
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<td>Working with clients</td>
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<td>0.69* (0.27)</td>
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<td>0.00 (0.04)</td>
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<td></td>
<td>0.02 (0.10)</td>
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<td>Department size</td>
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<td>-0.01 (0.06)</td>
</tr>
<tr>
<td>Level 2 (department) variance, $\sigma_2^2$</td>
<td>0.15 (0.11)</td>
<td>0.17 (0.11)</td>
<td>0.12 (0.10)</td>
<td>0.11 (0.08)</td>
<td>0.18 (0.11)</td>
<td>0.10 (0.09)</td>
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<tr>
<td>Level 1 (individual) variance, $\sigma^2$</td>
<td>0.55 (0.12)</td>
<td>0.49 (0.11)</td>
<td>0.51 (0.11)</td>
<td>0.37 (0.08)</td>
<td>0.48 (0.11)</td>
<td>0.50 (0.11)</td>
</tr>
<tr>
<td>–2 log-likelihood</td>
<td>192.57</td>
<td>187.72</td>
<td>185.63</td>
<td>164.11</td>
<td>187.34</td>
<td>181.04</td>
</tr>
<tr>
<td>Δ–2 log-likelihood</td>
<td>4.85*</td>
<td>2.09</td>
<td></td>
<td>23.61***</td>
<td>0.38</td>
<td>6.68</td>
</tr>
</tbody>
</table>

Notes: Based on data from 79 respondents in 40 departments. Unstandardized coefficients with standard errors in parentheses.

* Indicates individual-level variables.

b Compared to Model 1.

c Compared to Model 2.

*p < 0.05, **p < 0.01, ***p < 0.001.
Hypothesis 3, predicting that the frequency of representative voice would increase with the extent of contact with the department’s manager, was not supported. Of the variables used as indicators for contact with the manager, only department meetings had a moderate positive, although nonsignificant, correlation with the department means of representative voice (Table 3: $r = 0.21$, $p = 0.20$). In the multilevel analyses (Table 4, Model 5), none of the variables had a significant effect.

The data provided no support for Hypothesis 4, predicting that the extent of contact among a department’s employees would increase the frequency of representative voice. The variables used as indicators of contact among employees had small, nonsignificant correlations with the department means of representative voice (Table 3). In the multilevel analyses (Table 4, Model 6), none of them had a significant effect on representative voice.

Hypothesis 5 predicted a negative effect of department size on the frequency of representative voice. Contrary to expectations, the correlation was positive, although not significant (Table 3: $r = 0.29$, $p < 0.10$); in the multilevel analysis the effect was significant (Table 4, Model 6: $\gamma = 0.02$, $SE = 0.01$, $p < 0.05$). This provided no support for Hypothesis 5.

Additional analyses
We conducted additional analyses to examine the robustness of our models. Firstly, several of the independent variables were skewed. Re-running the analyses using the natural logarithm of these variables, we found that the results were virtually unchanged.

Secondly, based on hierarchical cluster analyses of variables measuring contact with the manager and contact among employees, respectively, we defined two clusters for each set of variables: departments with little contact and departments with much contact. Re-running the analyses with dummy variables indicating cluster membership, instead of the original set of variables, did not affect our conclusions: neither of the two dummy variables had a significant effect.

Thirdly, the relatively high correlations between some of the independent variables raised concerns about potential multicollinearity problems. However, examining different combinations of variables, the results were virtually unchanged.

Discussion
In this paper, we addressed two research questions. Firstly, does representative voice occur? And secondly, how can organizations stimulate it? Data on 40 departments of a large Dutch childcare organization suggested that the answer to the first question was ‘yes’. Representative voice did occur in most of the organization’s departments, although typically not more than ‘once’ or ‘several times’ in the 3 months before the study. Thus, it appeared to be a widespread, low-frequency phenomenon.

Regarding our second research question, our findings suggested that three of the organizational design features we studied had an effect. The presence of shared problems had the strongest effect, suggesting that representative voice occurred in response to shared problems almost regardless of other department characteristics. Further, representative voice was more frequent in larger departments. It was also more frequent in departments with direct contact with clients (in our case, children), perhaps because this increased the urgency of resolving problems. By contrast, the frequency of representative voice was not affected by the extent of contact among department members or the extent of contact with the department manager: neither office location, nor on-site presence nor the extent of meetings had an effect.
Our findings add to research on employee voice in several ways. Most importantly, we proposed a distinction between representative and individual voice as two forms of employee voice. Our findings suggested that representative voice is an important concept deserving more attention in future research. As basis for such research, we took the first steps towards developing a theoretical framework for representative voice. Our framework included both motivation and coordination as necessary preconditions for representative voice. With regard to motivation, our analyses suggested that parts of the existing theoretical framework for employee voice (namely, perceived problems as trigger for voice, Hirschman 1970; Miceli et al. 2008) could be extended to representative voice. By contrast, low costs of voice, measured in terms of frequent contact with the manager, did not seem to affect the frequency of representative voice. More research will be needed to test this in other types of organizations and for a larger range of antecedents of individual voice.

Further, we argued that some form of coordination would be necessary to solve the social dilemma facing employees deciding whether to act as representative. Our hypothesis that frequent contact among employees and small department size would promote coordination was not supported by the data. This suggested that in the departments we studied, contact frequency did not directly promote coordination. Although it may do so indirectly, by promoting the development of social norms concerning the selection of representatives, future studies should measure the presence of such norms directly. Organizational design specifying formal norms and roles may be important here (Pauksztat and Wittek 2010). Further, we speculate that contact frequency may be more important in settings lacking such norms – a question that future research should address.

Our findings also add to research on the effects of group size on voice. Contrary to previous theoretical work and experimental research (Olson 1965; Darley and Latané 1968), we found that representative voice was more frequent in larger departments. We speculate that group size may be less of a hindrance in organizational settings characterized by formal and informal norms. As discussed above, norms may facilitate coordination and hence compensate for potential negative effects of department size. Further, the efficiency advantages of representative voice arguably increase with department size, making representative voice more attractive in larger departments.

Other findings may apply to employee voice more generally. Firstly, our findings add to the few studies comparing voice in reaction to different types of problems (e.g. Near et al. 2004) by highlighting sharedness as a key characteristic of problems. They suggested that sharedness will affect not only whether employees speak up but also the form that voice will take. Examining the effects of problem characteristics on different forms of voice will be an important direction for future research. Secondly, our findings suggested that Grant’s (2007) argument that client contact will increase employees’ prosocial motivation can be extended to representative voice. As this was the first study to examine this, more research will be needed to corroborate these findings and to test whether this applies to other forms of voice. Thirdly, although previous studies suggested that good relations with a manager increased the likelihood of voice to that manager (e.g. Burris, Detert and Chiaburu 2008; Van Dyne, Kamdar and Joireman 2008), we found that contact frequency had no effect on the frequency of representative voice within a department. This seeming contradiction could be due to differences in the dependent variable and level of analysis. However, it is tempting to speculate that there may be substantive differences between the effects of contact frequency and relationship quality. Although both are arguably correlated (Jarvenpaa and Leidner 1999; Fiol and O’Connor...
2005), the former may primarily reflect the direct costs of voice, the latter the risk of negative consequences. From this perspective, previous research suggests that employees are concerned about potential negative consequences of voice, but, as suggested by our findings, not so much about the direct costs for voice. Differentiating between contact frequency and relationship quality and testing their effects on both individual and representative voice seems a fruitful direction for future research.

Responding to calls for more attention to the organizational context (Rousseau and Fried 2001; Johns 2006), our study adds to the literature by focusing on the effects of organizational design features. Taken together, our findings suggested that rather than the extent of contact, it was the interdependencies among employees (reflected in the sharedness of problems) and interactions with clients that mattered. Although both have received little attention so far, they should be considered in future theorizing on representative voice and employee voice more generally. This has implications for management as well. Firstly, managers should expect and allow for representative voice. The fact that representative voice was strongly related to the perception of shared problems suggested that for employees this was a way of addressing serious concerns. Although some concerns may be brought up during regular meetings, this may not always be the case. Secondly, our findings suggested that simply increasing the amount of contact is not sufficient, and perhaps not even necessary, for promoting employee contributions like representative voice. Rather than increasing manager’s on-site presence, reshaping office spaces or scheduling more or longer meetings, it may be more important to increase interdependencies among employees (e.g. through implementation of team work) and to emphasize the impact of employees’ work on clients.

Several limitations of our study need to be taken into account. Our study was cross-sectional, based on data from one childcare organization in the Netherlands. The large differences between its departments allowed us to obtain some first indications concerning the frequency of representative voice and its association with particular departmental settings. Nevertheless, more research, preferably with larger samples and panel designs, will be needed to assess whether our findings can be generalized to a broader range of organizational settings. Such studies should also examine the effects of formal voice procedures on representative voice.

Another important issue concerned the measurement of representative voice. We sought to increase the likelihood that respondents would be well informed about department members activities in two ways. Firstly, our definition of departments required co-location or regular meetings. Secondly, we included a ‘don’t know’ option in the survey to prevent answers based on guessing. Although this reduced the number of reports available for the analyses, it increased our confidence in the remaining 79 reports. Alternatively, in future studies one might aggregate responses about respondents’ own behaviour to the department level; however, this requires data from all department members. Diary-based approaches, i.e. asking a sample of voice targets to record the occurrence of representative voice, may be a more viable alternative.

Finally, future research should test the idea that formed the starting point of our argument, namely that the occurrence of representative voice reduces the frequency of individual voice. If different forms of voice indeed are competing alternatives, it may well be the case that the design features we studied stimulated other forms of voice and, therefore, had only little effect on representative voice.

In this paper, we introduced the concept of representative voice, demonstrated its occurrence in a variety of settings and took the first steps towards developing a theoretical
framework for explaining representative voice. We hope this will provide a basis for future research on representative voice.

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Notes
1. We made exceptions to this criterium for two departments with no salient sub-units. In these departments, employees worked at different locations, and department meetings were held only once or twice every 3 months. Nevertheless, according to the departments’ managers, employees had occasional informal contact with each other and were aware of what happened within their department.
2. An additional category, ‘other problems’, was only used by five respondents in the survey and, therefore, not included in the analyses.
3. This number may underestimate actual department size. In the personnel records provided to us, only one department affiliation was indicated for each employee. For about 100 employees affiliated with several departments, the affiliation provided was for the department where they worked most hours.
4. We excluded employees’ average age because of its high correlation with average tenure ($r = 0.59, p < 0.001$).

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