Business in the performing arts: Dual executive leadership and organizational performance

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2 Performance Effects of Cognitive Heterogeneity in Dual Leadership Structures in the Arts: The Role of Selection System Orientations

Abstract - A dual executive leadership structure aspires to shape an executive constellation where both executives have different orientations that they use to assess the world around them, process information to make decisions, and evaluate outcomes. By separating the executive position into two functionally different roles, pluralistic organizations such as high art organizations, intend to balance multiple organizational objectives. Using dyadic data from both the artistic and managing directors of 51 (subsidized) theatre and dance companies with dual leadership structures, we study the drivers of a particular selection system orientation (peer, expert or market) and the effects of possible heterogeneity in orientation between the dual leaders. We find that functional roles are related to selection system orientations and that heterogeneity in selection system orientations has an effect on organizational performance, specifically when evaluated by experts.¹

INTRODUCTION

Many organizations, such as hospitals, newspapers, universities and cultural organizations are characterized as pluralistic, which means that they have to balance multiple goals (Denis, Lamothe, & Langley, 2001; Denis, Lamothe, & Langley, 2001).

¹ This chapter is based on a paper that was published in the European Management Journal: Bhansing, P. V., Leenders, M. A. A. M., & Wijnberg, N. M. (2012). 'Performance effects of cognitive heterogeneity in dual leadership structures in the arts: The role of selection system orientations'. European Management Journal, 30 (6), 523-534.
Denis, Langley, & Rouleau, 2007; Leenders & Waarts, 2003; G. B. Voss et al., 2006). For example, many organizations place importance on economic as well as non-economic goals and these goals can be difficult to reconcile.

One approach to deal with multiple organizational objectives is to structure the organization to allow different parts to pursue different goals (Fjellvaer, 2010). This partitioning of an organization can go hand in hand with a division of leadership in such a way that each executive is responsible for part of the organization and the fulfillment of a particular set of objectives. If an organization is led by two executives who occupy the same rank, this can be described as a ‘dual executive leadership structure’ (Reid & Karambayya, 2009).

Sometimes dual leadership structures are created because two individuals – for instance, two founders – consider it the most adequate solution to the challenges organizations face in their industry. In some dual leadership structures, tasks and responsibilities are simply shared without a clear division of labor. In our study, the focus is on pluralistic organizations with a dual leadership structure (mandated by an external board) in which each manager has a separate functional role and set of functional objectives.

Different streams of research have attempted to relate the success of organizations to managerial attitudes and beliefs. Voss, Cable and Voss (2000) measure organizational values of managers in cultural organizations in order to explain different stakeholder perceptions of success. Another stream of literature focuses on how cognitive heterogeneity between top managers in organizations influences organizational success (Kilduff et al., 2000). Cognitive heterogeneity refers to differences between the focal actors with respect to how they assess the world around them, process information to make decisions and evaluate outcomes. Differences in individual values, beliefs and selection system orientations – the core concept of this paper – can result in cognitive heterogeneity, and if such cognitive heterogeneity appears within the leadership of an organization, this can have consequences for organizational performance (Murray, 1989).

The type of cognitive heterogeneity that we focus on in this paper concerns the differences between managers with respect to how they view the competitive environment in which the organization operates. In selection system theory, selectors are the actors who determine value and thereby determine the outcome of competitive processes (Gemser et al., 2008; Wijnberg & Gemser, 2000). Three types of selectors are distinguished: market selectors, peer selectors and expert selectors. We introduce the concept of selection system orientation to describe the extent
to which evaluations of a particular type of selector weigh in the mind of the individual manager. For instance, a manager who considers organizational success to be primarily dependent on the evaluation by experts (such as reviewers) while the opinions of ordinary consumers count for less, has a strong expert selection system orientation and weak market selection system orientation. In addition, the actual organizational performance can be determined along each of the same three dimensions of selection. An organization that manages to increase consumers’ willingness to pay will score high on market selection and an organization that attracts the acclaim of their competitors will score high on peer selection. An organization that is highly regarded by experts, scores high on expert selection.

Cultural organizations are prime examples of pluralistic organizations as they often face highly divergent demands. Their key goals – artistic and economic – are often difficult to combine in one organization, and they are sometimes even mutually exclusive (Delmestri, Montanari, & Usai, 2005). For example, being too openly concerned with commercial success may be detrimental to an organization’s standing in the cultural field (Caves, 2000). As a response to the dichotomy between artistic and economic logic (Eikhof & Haunschild, 2007; Lampel, Lant, & Shamsie, 2000; Thornton & Ocasio, 2008; Townley, Beech, & McKinlay, 2009), cultural organizations often adopt a dual executive leadership structure in which each of the leaders have separate functional roles and responsibilities resulting in a structure in which an artistic director and a managing director lead the organization together.

For the empirical part of this study, we specifically look at cultural organizations that receive at least some government subsidies on the basis of their importance to Dutch cultural life. These organizations explicitly aim for artistic and economic goals. Although previous research has suggested that the artistic director follows an artistic logic and the managing director an economic logic, it is not a given to which degree top managers conform to a certain logic. Even if the manager’s tendency is to follow certain logic, he or she can do this differently to satisfy particular groups of stakeholders. Therefore, the extent to which a manager attaches importance to the evaluation by particular groups of stakeholders – in other words, the degree of his or her selection system orientations – could be an important aspect of this manager’s personal attitude and beliefs on which he or she bases his or her decisions.
Thus, the key contributions of this study are threefold. First, we explore a specific type of pluralistic organization that has a structure in which dual leaders are assigned to different functional goals. Since the goals are often competing, cognitive heterogeneity is expected to play an important role in the functioning and eventual performance of the organization. Second, we measure a leader’s attitude towards different dimensions of the organization’s competitive environment by introducing the concept of selection system orientation. Comparing the selection system orientations of dual leaders allows us to investigate the extent to which organizational roles are related to individual attitudes, while simultaneously providing a new measure of cognitive heterogeneity. Third, the concept of the selection system orientation enables us to make a distinction between key dimensions of organizational performance. By doing so, we investigate systematically how cognitive heterogeneity affects specific aspects of organizational performance.

First, we will discuss characteristics of pluralistic organizations, the dual leadership structure and selection system orientations. Second, we discuss how these concepts manifest themselves in the high arts industry and how cognitive heterogeneity is related to organizational success. We propose a number of hypotheses that will be tested with data collected from a survey among managers of Dutch theatre and dance companies. Third, the results will be presented. After this, a discussion and conclusions section will round off this paper.

THEORY

Pluralistic organizations and the dual leadership structure

Research on pluralistic organizations has mainly focused on strategies and structures that enable organizations to accomplish multiple organizational objectives simultaneously. Research has shown that in pluralistic organizations complementary roles of managers are important in achieving change (Denis et al., 2001) and that competing logics in pluralistic organizations can be difficult to manage (Fjellvaer, 2010).

The tension and ambiguity that arises from multiple goals can be managed in different executive role constellations (Fjellvaer, 2010). The dual executive leadership structure is found in banking, high tech businesses, journalistic organizations, non-profit organizations (Alvarez &
Svejenova, 2005) and especially in cultural organizations. On the one hand the dual leadership structure has the potential danger of conflict escalation (Reid & Karambayya, 2009). On the other hand such a structure can make organizations more responsive to their external organizational environment (Heenan & Bennis, 1999). Alvarez and Svejenova (2005) suggest that role complementarity is a key advantage of a dual leadership structure. For example, the researchers describe how, in a high-tech company, one CEO is regarded as a financial wizard and the face of the company on Wall Street and the other CEO as the science mastermind and the production guru. They specifically argue that such complementarity can make a dual arrangement highly resilient and provides different perspectives on complex environments.

The dual leaders may be influenced by their personal idea of what creates value for organizations in the eyes of stakeholders. It is likely that these attitudes or beliefs affect strategic decision making and, therefore, organizational performance. This line of reasoning relates to Hambrick and Mason’s (1984) Upper Echelon theory, which argues that managers’ cognitions influence organizational performance. Cognitions such as attitudes, values and beliefs are likely to form top managers’ ideas about what type of success is important. The central idea of what the researchers call the Upper Echelons theory is “that executives’ experiences, values, and personalities greatly influence their interpretations of the situations they face and, in turn affect their choices” (Hambrick, 2007, p. 334). For example, Voss et al. (2000) show that values espoused by particular managers are related to managers’ view on who the most important stakeholders of the organization are and how to achieve organizational performance in the eyes of these stakeholders.

**Selection system orientations**

In a dual executive leadership structure in pluralistic organizations one individual leader may be leaning more towards a particular stakeholder group and the other towards another stakeholder group. As the dual leaders often have different backgrounds, it is likely that both leaders in such a structure have different perceptions of the strategic environment. Earlier studies have identified different stakeholder groups and their different relations with a particular organization. Agle, Mitchell and Sonnenfeld (1999) constructed a framework that explained the degree to which a CEO prioritizes different stakeholders by the salience of each specific stakeholder in terms of power, legitimacy and urgency. Next to this,
DiMaggio (1992) argues that museums can be oriented towards different objectives that correspond to the preferences of different stakeholders: patrons, who prefer high-quality exhibitions; members of the general public, who prefer popular exhibitions and public authorities, who prefer education and outreach programs to figure more prominently among the organizational activities. Our approach to stakeholder orientation combines aspects of both studies discussed above, as it incorporates the extent to which managers take particular stakeholders into account and the possibility that individual managers within a single organization will differ in respect to the relative importance they attach to different stakeholders.

Selection system theory posits that there are three main types of selectors. In *market* selection the most dominant selectors are consumers, in *peer* selection they are other producers, in *expert* selection they are neither producers nor consumers. Experts provide evaluations, which have an impact on the behavior of customers and other stakeholders, because of the expertise that is attributed to them personally or to the organizations to which they belong. Earlier studies have shown that certain industries or markets can be characterized as being governed by particular selection systems and that this can explain the competitive impact of specific signals, such as awards (Gemser et al., 2008), the role of innovativeness as a product characteristic (Wijnberg & Gemser, 2000) and long-term competitive dynamics (Mol & Wijnberg, 2007). This theoretical framework also suggests that one of the main tasks of managers is to identify the stakeholders whose evaluations matter most in the perception of quality and performance of the organization – in other words, the dominant selectors.

Stakeholder theory argues that important stakeholders have a significant influence on organizational outcomes (Freeman, 1984). Of course it is possible that different managers identify different stakeholders as dominant selectors and will, therefore, strive to have the organization satisfy the sets of preferences they assume belong to their ‘favorite’ selectors. The concept of selection system orientation essentially refers to the extent to which the evaluations of a particular type of selector weigh in the mind of the individual manager. We posit that selection system orientations are, like values, trans-situational (McClelland, 1985), establish behavior and concern external objects or events towards which individuals are motivated (Herbst & Houmanfar, 2009). Thus, a manager who considers organizational success to be primarily dependent on evaluations by experts, while the opinions of ordinary consumers count for little, will
score high along the expert selection dimension and low along the market selection dimension.

The selection system orientation of a manager will also determine the type of performance indicator a manager prefers and the actions that are needed to accomplish those goals. Managers whose selection system orientation is more heavily weighted towards expert selection are likely to be more concerned with reviews, awards from expert juries and opinions of scholars and government organizations in their field. Such a manager may be more inclined to invite more critics to a new product launch. Managers with a strong peer selection system orientation are likely to be concerned with how they are evaluated by their colleagues in other organizations, as evidenced for instance by awards from industry associations. Managers with a market selection system orientation are likely to be concerned with consumer awards, advertising, sales, and ticket prices.

Previous research has shown differences in managers’ perception of their strategic environment (Houghton & Neubaum, 1994; Z. G. Voss, Cable, & Voss, 2006). This shows that there are differences in selection system orientations in dual executive leadership structures. In general, one will expect that the views of managers on what is important to the organization will be related to their specific organizational tasks and responsibilities. For example, Houghton and Neubaum (1994) studied different management positions in hospitals. They asked top managers to recall issues that were discussed in last year’s top management team meetings. Medical doctors and financial managers tended to recall most often the strategic issues that were related to their particular area of expertise.

**Dual leaders and selection system orientations in the arts**

The discussion in the previous subsection suggests that managers in dual executive leadership structure in the cultural industries – artistic and managing directors – will have different perspectives on their strategic environment. This is further confirmed by the study of Voss, et al. (2006), who showed that managing directors and marketing directors of theatres had different views on the organizational identity. Based on these results, it is likely that each individual manager will be more oriented towards the selectors that play an important role in the evaluation of organizational performance for which each is primarily responsible. In cultural organizations, the artistic director is responsible for the artistic side of the organization and the managing director for the business side of the
organization. Together they make strategic decisions about organizational issues where artistic and business matters interact.

While there seem to be larger audiences for entertainment than for art, this does not mean that neglecting artistic innovation will attract larger audiences (G. B. Voss et al., 2006). According to Lampel, et al. (2000), cultural organizations must reconcile the demands of artistic production with those of the marketplace. Thus, managing cultural organizations requires balancing both logics in the organizational strategic decision-making process.

Each stakeholder of a cultural organization may necessitate a different balance between artistic and economic value. For example, the average consumer may attach more value to entertainment and less to artistic innovations, while the organizations’ peers may attach more value to artistic innovation. The artists themselves generally tend to attribute relatively high importance to the judgment of their own peers (Caves, 2000; Eikhof & Haunschild, 2006; Hirschman, 1983; McLeod, O'Donohoe, & Townley, 2009). Therefore, we argue that artistic directors will score higher on their peer selection system orientation than managing directors. In general, the primary task of artistic directors is to create art and to recruit key actors, such as directors, leading actors and costume designers. Managing directors are more likely to have a relatively strong market orientation and their actions will be directed more towards attracting and satisfying customers, obtaining private donations, and attracting corporate sponsorships. If an organization depends to a significant extent on government subsidies and/or grants and subsidies from non-governmental organizations, this is likely to be handled by the managing director as well. Subsidy and grant allocations are often determined by expert committees (e.g., critics, theatre programmers, and other experts); leading to a stronger expert orientation in managing directors compared to artistic directors. This brings us to our first hypothesis, which concerns the level of the individual managers in the organization.

**Hypothesis 1:** Artistic directors have a stronger peer orientation and weaker expert and market orientation than managing directors.

**Selection system orientation heterogeneity**

Earlier studies show that differences between top managers can influence performance at the organizational level (Cannella, Park, & Lee, 2008;
Leadership structures that allow cognitive heterogeneity at the top are likely to be formed by an organization’s necessity to specialize/differentiate organizational processes, also in response to the demands of different types of stakeholders. Lawrence and Lorsch (1967, p. 3-4) define differentiation as “the state of segmentation of the organizational system into subsystems, each of which tends to develop particular attributes in relation to the requirements posed by its relevant external environment”. If there is a top management team of two or more managers, selection system orientation heterogeneity between them can be considered to be a characteristic of the team that can have outcomes at the organizational level. Cognitive heterogeneity has been studied in the top management team (TMT) literature; this term refers to a small group of the most influential managers who are at the top of an organization (Finkelstein et al., 2009). Studies that discuss TMT heterogeneity at times exclude teams of two individuals from their analysis, stating that groups of two individuals are not really groups. Other studies do include dyads in their studies (Collins & Clark, 2003).

Moreland (2010) argues that dyads are qualitatively different from groups, because certain group processes behave differently in dyads than in groups larger than two. According to Williams (2010) considering a dyad as a valid group depends on the setting in which the dyad operates. Moreover, Williams (2010) argues that it is possible to study important factors related to group processes by investigating behavior within dyads. Dyads have been studied in research on many group phenomena (Williams, 2010), including negotiation and cooperation (Olekalns & Smith, 2005). Therefore, we believe that a large part of the literature on teams is applicable to dyads and that research on dyads can be helpful in the understanding behavior of larger teams. Moreover, by using only groups of two individuals we can exclude the possible effects of group size and focus on the most basic features of cognitive heterogeneity. Scholars have noted that size has implications for team conflict and information processing capacity (Carpenter et al., 2004).

The general assumption in the TMT heterogeneity literature is that more cognitive heterogeneity in a TMT would imply that more issues are attended to in the strategic decision-making process, which will consequently result in better organizational outcomes (Cannella & Holcomb, 2005). However, research has shown both favorable and unfavorable consequences of heterogeneity. Positive effects are, for example, innovativeness (Bantel & Jackson, 1989; Murray, 1989),
increased problem solving abilities (Hurst et al., 1989; Nemeth, 1986), and flexibility and the ability to adapt due to skill diversity, information sources and perspectives (Carpenter & Fredrickson, 2001; Carpenter, 2002; Geletkanycz & Hambrick, 1997; Sutcliffe, 1994; Wiersema & Bantel, 1993, for an overview see Finkelstein et al., 2009, p. 131-136). Negative effects of heterogeneity in TMTs are, for example, increased potential for conflict (e.g., Amason, 1996; Chatman & Flynn, 2001; Ferrier, 2001), reduction of communication frequency (e.g., Bunderson & Sutcliffe, 2002) and reduction of attention and focus (Bertrand & Schoar, 2003, for an overview see Finkelstein et al., 2009, p. 131-136).

Within the TMT literature there are two main approaches to measure personal cognitions of top managers: one uses demographic characteristics in particular as a proxy for cognitive differences, and a more recent stream measures cognitive differences directly (Kilduff et al., 2000). Researchers have discussed the weaknesses of the demographic approach (Carpenter et al., 2004) and suggest that demographics should be abandoned in favor of variables that embody processes, attitudes and judgments (Olekalns & Smith, 2005; Priem et al., 1999). The selection system orientations directly measure top manager’s cognitions, in terms of attitudes and beliefs, about what creates value for an organization. This allows us to have a more substantive measure of cognitive heterogeneity.

Especially relevant to our study are the investigations of Olson, Parayitam and Bao (2007), Kilduff, et al. (2000), and Mello and Ruckes (2006). Olson, et al. (2007) measured the cognitive heterogeneity of TMTs in hospitals by using questionnaire items that reflect belief heterogeneity and preference heterogeneity. These researchers conclude that cognitive heterogeneity is beneficial to the TMT decision-making processes. Kilduff, et al. (2000) found mixed results for the effects of cognitive heterogeneity in teams. They measured cognitive TMT heterogeneity by asking managers to indicate their perception of role specialization, power distribution, causes of performance, decision-making difficulties and agreement with team decision making. Heterogeneity in managers’ perceptions of causes of performance had a positive influence on performance, whereas perceived decision-making difficulty seemed to have a negative influence on performance and the other group processes had no influence on performance. Moreover, a recent study by Mello and Ruckes (2006) also indicates that cognitive heterogeneity in teams result in better decisions. The researchers studied teams consisting of one subordinate and one superior and their individual use of information sources. Analyses of the
composition of teams showed that heterogeneous teams – teams where the subordinate and the superior access different information sources – had the potential to reach better decisions than homogenous teams – teams where the subordinate accesses the same information sources as the superior.

Although the results of studies building on cognitive heterogeneity have been mixed, we assume that non-overlapping knowledge and expertise will allow the decision makers a broader view and will help to reduce the risk of groupthink (Carpenter & Fredrickson, 2001). Nevertheless, we recognize that there may also be a negative effects on performance, because of information overload (Jehn, Chadwick, & Thatcher, 1997) and difficulties in integration of different thought worlds (Griffin & Hauser, 1996). In pluralistic organizations with a dual executive leaderships structure the benefits of specialization, diffusion of power and the focus on different selectors still could outweigh these potential drawbacks.

In light of the nature of dual executive leaders’ functional roles in cultural organizations, it becomes logical that one top manager may be more specialized in one area than the other top manager. Since the functional roles in the dual leadership structure are separated one could assume that each dual leader may be more strongly oriented towards the selectors that seem to be most relevant to his or her tasks and responsibilities (see hypothesis 1), precisely because this would make it more likely to achieve performance along that particular dimension. If this is the case, explanations of the effects of heterogeneity in respect to selection system orientations (along each of the three dimensions) should not only look at the extent of heterogeneity, but also at the direction of heterogeneity as predictors for performance along the relevant dimensions. This leads us to propose hypothesis 2a, 2b, and 2c, which concern the organizational level.

_Hypothesis 2a._ Heterogeneity in expert orientation between the dual leaders in an organization has a positive relationship with expert performance of the organization.

_Hypothesis 2b._ Heterogeneity in peer orientation between the dual leaders in an organization has a positive relationship with peer performance of the organization.
Hypothesis 2c. Heterogeneity in market orientation between the dual leaders in an organization has a positive relationship with market performance of the organization.

DATA AND METHOD

To test the hypotheses, we conducted an empirical study using a questionnaire that was administered to both the artistic director and the managing director of high art organizations in the Netherlands. In this way we collected dyadic data concerning the top management of art organizations.

The industry setting: High arts in the Netherlands

In the Netherlands, all mid-sized and major cities have at least one professional art organization focusing on dance or theatre. A large part of these companies’ income comes from government subsidies (82.5%) (OCW, 2007). The remainder is acquired from other sources: grants from non-governmental organizations, ticket sales and sponsorship. The role of the government substantially differs with the United States high arts setting (Johns, 2006) where box office, private donations and corporate sponsorships make up the larger part of the companies’ income (Zimmer & Toepler, 1999).

The individuals that decide which organizations are granted governmental subsidies are often experts (e.g., theatre programmers and theatre critics) and other professionals in the industry (e.g., other producers) – who judge a company’s artistic quality, artistic potential, their scope of audience, diversity of audience, (unique) position in the high arts landscape and their contribution to the cultural field in terms of innovation (NFPK+, 2008). In the Netherlands in the last decennia of the 20th century, the presence of innovativeness has become the core criterion for determining artistic quality that justifies public support to the arts (Oosterbaan Martinius, 1990; Van Klink, 2005).

As discussed before, in this paper we focus on high art organizations that have a dual executive leadership structure, which consists of an artistic

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2 The membership of the committees that decide about awarding subsidies can include peers, such as artistic directors. Nevertheless, these committees can be characterized as ‘expert’ based, because that is how the majority of committee members can be described.
director and a managing director. The artistic director in theatre and dance companies in the Netherlands oversees the artistic productions of the company. Typically, an artistic director has started his or her career as an artist in a particular discipline and has gained a positive reputation. He or she is often directly involved in the selection, creation and/or performance of the productions of the company. Furthermore, the artistic director selects artistic personnel, such as actors, costume design, light and sound technicians. The managing director is typically an individual that has a great interest in the arts, evident by his or her career choices. The managing director is in charge of revenue development activities such as marketing and applying for government subsidies. In addition, he or she is responsible for the budget planning process and manages and selects administrative personnel. The total number of people in managerial and administrative positions is not that large and the leaders are likely to have frequent contact and discuss important issues. Usually, a supervisory board of the theatre and dance company exists of non-executive directors from outside the company with the primary function of overseeing the organization as a whole and, most importantly, selecting applicants for both executive positions if vacancies occur.

**Sampling**

We focused on members of the Dutch Association for thePerforming Arts (NAPK). This organization also endorsed the study and was actively involved in obtaining a high response rate among its members. After screening 84 member organizations, we learned that 69 (82%) of these members had a dual leadership structure that was clearly divided along artistic and business goals. The other 15 (18%) had a structure where there was one top manager responsible for artistic as well as business goals – with subordinates that did not have substantial influence on strategic decisions – or a collective where multiple members of the organization shared both artistic and business responsibility. Of the 69 relevant organizations, we were able to collect data from both the artistic and managing director of 51 organizations (74%).

**Dependent and independent variables**

*Independent variables.* Expert selection system orientation, peer selection system orientation and market selection system orientation were measured using multiple item scales. A full list of items can be obtained from the authors. The scales denote the extent to which individuals are concerned
with the opinions of the three different types of selectors, with items such as: “The opinions of other producers are an important measure of the success of our performances” for peer performance; “In the decisions I make, I strongly consider the view of committees involved with awarding government subsidies” for expert orientation and “Performances should meet the expectations of the audience” for market orientation. The expert selection system orientation scale consists of a 4 item scale that proved unidimensional with a Cronbach $\alpha = 0.7$. The peer orientation scale, which consists of a 7 item scale meets the minimum requirements; Cronbach $\alpha = 0.5$ (quite low but acceptable, see Guilford, 1965). The market selection system orientation scale consists of a 7 item scale that proved to be unidimensional with a Cronbach $\alpha = 0.6$.

From each orientation scale we composed heterogeneity scales for expert selection system orientation heterogeneity, peer selection system orientation heterogeneity and market selection system orientation heterogeneity. With these variables we took into account that the direction of difference between the artistic and managing director is not arbitrary. In other words, it matters that one director may have a higher expert orientation than the other director. Selection system orientation heterogeneity between managers of the same organization was determined by subtracting the managing director’s score from the artistic director’s score on each selection system orientation scale. As a result negative scores display that the score of the managing director is higher than the score of the artistic director and positive scores display that the score of the artistic director is higher than the score of the managing director. This distance measure is common in dyadic research where the differences between the dyads such as husbands and wives are not arbitrary (Kenny, Kashy, & Cook, 2006).

**Dependent variables.** To measure organizational performance we used and adapted scales from the extant research on organizational performance (Harris, 2001; Morgan & Berthon, 2008; Richard et al., 2009). We asked both artistic and managing directors to rate their organization in comparison to similar organizations on different types of organizational performance metrics – on a 5-point Likert-type scale (Dess & Robinson, 1984). These two scores were used to develop three organizational performance measures reflecting success in different sub-environments.

*Peer performance, expert performance and market performance* were measured using scales that resulted from a data reduction approach. Using
literature (G. B. Voss et al., 2000; Wijnberg & Gemser, 2000) 10 items were generated covering peer, expert and market performance. The full list can be obtained from the authors. Factor analysis showed no clear underlying dimensions. Therefore, to come up with performance measures, we chose those items that best represent the three different selection system orientations. This approach focuses on measurement validity instead of inter-item reliability (Rossiter, 2002). Peer performance consists of a single item scale that reflects the company’s reputation among peers. Expert performance consists of a single item scale that reflects the company’s reputation among experts. Market performance consists of a single item scale that reflects the company’s popularity among the audience in terms of attendance rates (percentage of available occupied seats in venues).

**Control variables.** We composed control variables that relate to age and tenure of both directors and control variables that relate to the organization – size and type – for which they work. In addition, we included demographic heterogeneity controls for age and tenure (number of years in the organization). These were calculated in a similar way to the orientation heterogeneity variables.

**Screening the data**
There were no significant differences between respondent profiles and company characteristics of early and late responses. Consequently, there are no indications of non-response biases. We also tested for reversed causality by replacing the orientation variables with the performance variables. In addition, we conducted Harman’s single factor tests to assess common method variance. This test has frequently been used in management studies (e.g., Lahiri & Kedia, 2011). We conducted separate tests for each performance measure, which showed no evidence of a common method bias nor of a substantive self-report bias in our analysis (Podsakoff et al., 2003).

**RESULTS**
To test hypothesis 1 and 2 several analyses were conducted. The means, standard deviations and correlations are presented in Table 2.1. Expert performance has positive significant correlations with peer performance (r
= 0.803, \( p \leq 0.01 \)) and market performance \( (r = 0.361, p \leq 0.01) \). Contrary to our expectations we did not find positive significant correlations between expert orientation heterogeneity and expert performance \( (r = 0.156, p = 0.31) \), peer orientation heterogeneity and peer performance \( (r = -0.166, p = 0.27) \) and market orientation heterogeneity and market performance \( (r = 0.009, p = 0.92) \). Next to this Table 2.1 shows that peer \( (M = 0.09) \), market \( (M = -0.25) \) and expert \( (M = -0.43) \) selection system orientation heterogeneity is quite small.

To test hypothesis 1, which is at the individual level, three ANCOVA’s were run, each with a different selection system orientation as dependent variable and the dual leaders’ functional position as independent variable. In addition, we added the covariates age, tenure, organizational size and organization type. As expected, Table 2.2 shows that managing directors \( (M = 3.16) \) have a higher average expert orientation than artistic directors \( (M = 2.70) \), and that managing directors \( (M = 3.67) \) have a higher average market orientation than artistic directors \( (M = 3.42) \). The differences between the means of expert orientation \( (p \leq 0.01) \) and the means of market orientation \( (p \leq 0.05) \) are significant in the direction that was hypothesized. However, artistic directors do not have a significantly higher peer orientation \( (M = 3.76) \) than managing directors \( (M = 3.67) \). The relation between functional position and selection system orientations provides evidence to partially support hypothesis 1.

Next, we studied possible effects of selection system orientation heterogeneity in the dual executive leadership structure on the different organizational performance dimensions as hypothesized in hypothesis 2. Here, the organization as a whole is the level of analysis. For this, three comparable regression models were run, one on each performance dimension, with the three selection system orientation heterogeneity variables as predictors and average orientations, age and tenure, heterogeneity in tenure and age, and organizational size and type as control variables. Table 2.3 shows that heterogeneity in expert selection system orientation is significantly and positively related to expert performance \( (\beta = 0.374, p \leq 0.05) \). Contrary to our expectations, heterogeneity in peer selection system orientation is not significantly related to peer performance \( (\beta = 0.044, p > 0.1) \), and heterogeneity in market selection system orientation is not significantly related to market performance \( (\beta = -0.826, p > 0.10) \). We thus only find support for hypothesis 2a. Next to the hypothesized effects, we find significant effects of certain control variables. Age heterogeneity is significantly related to expert performance \( (\beta = 0.412, \)
### Table 2.1: Correlation matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
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<tr>
<td>(1) Expert performance</td>
<td>3.96</td>
<td>0.75</td>
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<td>(2) Peer performance</td>
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<td>0.65</td>
<td>0.803**</td>
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<tr>
<td>(3) Market performance</td>
<td>3.71</td>
<td>0.77</td>
<td>0.361** 0.220</td>
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<tr>
<td>(4) Expert orientation heterogeneity</td>
<td>-0.43</td>
<td>0.80</td>
<td>0.156 -0.082 0.163</td>
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<tr>
<td>(5) Peer orientation heterogeneity</td>
<td>0.09</td>
<td>0.39</td>
<td>-0.187 -0.166 -0.022 0.004</td>
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<tr>
<td>(6) Market orientation heterogeneity</td>
<td>-0.25</td>
<td>0.58</td>
<td>0.037 0.067 0.009 0.243 -0.229</td>
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<tr>
<td>(7) Age heterogeneity</td>
<td>3.51</td>
<td>11.09</td>
<td>0.008 -0.084 -0.069 0.052 -0.111</td>
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<tr>
<td>(8) Tenure heterogeneity</td>
<td>4.73</td>
<td>14.21</td>
<td>-0.179 0.057 -0.051 0.072 -0.211 0.145</td>
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<tr>
<td>(9) Average Expert orientation</td>
<td>2.96</td>
<td>0.42</td>
<td>0.023 0.210 -0.188 -0.094 -0.133 -0.137 -0.325* 0.101</td>
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<tr>
<td>(10) Average Peer orientation</td>
<td>3.71</td>
<td>0.35</td>
<td>0.126 0.247* -0.153 0.054 -0.183 -0.158 -0.129 0.186 0.535***</td>
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<tr>
<td>(11) Average Market orientation</td>
<td>3.53</td>
<td>0.31</td>
<td>-0.13 -0.033 0.243 0.285* -0.057 0.188 -0.154 -0.050 0.031 -0.092</td>
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<tr>
<td>(12) Average Age</td>
<td>48.52</td>
<td>6.25</td>
<td>0.208 0.053 0.149 -0.077 -0.322** 0.241* -0.138 0.177 -0.200 0.208 -0.039</td>
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<tr>
<td>(13) Average Tenure</td>
<td>9.80</td>
<td>6.56</td>
<td>-0.023 -0.127 -0.027 -0.008 -0.005 0.130 -0.047 -0.217 -0.141 -0.048 -0.240* 0.427***</td>
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<tr>
<td>(14) Organization Size</td>
<td>24.28</td>
<td>26.04</td>
<td>0.173 0.221 0.433*** 0.124 0.050 -0.141 -0.071 -0.025 0.028 0.248* 0.169 0.041 -0.148</td>
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<tr>
<td>(15) Organization Type</td>
<td>1.25</td>
<td>0.43</td>
<td>0.113 0.131 0.220 0.001 0.106 -0.096 0.092 0.168 0.268* 0.263* 0.017 0.036 -0.065* 0.499***</td>
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</tbody>
</table>

* p ≤ 0.10, * p ≤ 0.05, *** p ≤ 0.0
Table 2.2: ANCOVA selection system by functional position

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expert orientation</th>
<th>Peer orientation</th>
<th>Market orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M F</td>
<td>M F</td>
<td>M F</td>
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<tr>
<td>Functional Position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artistic director</td>
<td>2.70 11.228***</td>
<td>3.76 1.504</td>
<td>3.42 4.506**</td>
</tr>
<tr>
<td>Managing director</td>
<td>3.16 3.64</td>
<td>3.67</td>
<td></td>
</tr>
</tbody>
</table>

1. * p ≤ 0.10, ** p ≤ 0.05, *** p ≤ 0.01
2. ANCOVA is controlled for age, tenure, organization size and organization type.

Table 2.3: Effects of selection system orientation heterogeneity on performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expert performance</th>
<th>Peer performance</th>
<th>Market performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β (t)</td>
<td>β (t)</td>
<td>β (t)</td>
</tr>
<tr>
<td>Constant</td>
<td>3.887 (0.800)</td>
<td>1.323 (0.226)</td>
<td>4.087 (0.733)</td>
</tr>
<tr>
<td>Selection system orientation heterogeneity</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Expert</td>
<td>0.374** (-2.040)</td>
<td>-0.053 (-0.279)</td>
<td>0.109 (0.614)</td>
</tr>
<tr>
<td>Peer</td>
<td>-0.085 (-0.440)</td>
<td>-0.044 (-0.220)</td>
<td>-0.001 (-0.004)</td>
</tr>
<tr>
<td>Market</td>
<td>-0.189 (-0.975)</td>
<td>0.029 (0.142)</td>
<td>-0.042 (-0.222)</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
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</tr>
<tr>
<td>Average Expert orientation</td>
<td>0.228 (0.916)</td>
<td>0.170 (0.661)</td>
<td>0.019 (0.078)</td>
</tr>
<tr>
<td>Average Peer orientation</td>
<td>0.005 (0.019)</td>
<td>0.263 (-1.081)</td>
<td>-0.375 (-1.640)</td>
</tr>
<tr>
<td>Average Market orientation</td>
<td>-0.135 (-0.744)</td>
<td>-0.008 (-0.040)</td>
<td>0.231 (-1.314)</td>
</tr>
<tr>
<td>Average Age</td>
<td>0.468 (-1.663)</td>
<td>0.111 (0.383)</td>
<td>0.331 (-1.215)</td>
</tr>
<tr>
<td>Average Tenure</td>
<td>-0.072 (-0.314)</td>
<td>-0.006 (-0.026)</td>
<td>-0.082 (-0.371)</td>
</tr>
<tr>
<td>Age heterogeneity</td>
<td>0.412** (-2.175)</td>
<td>0.258 (-1.323)</td>
<td>-0.021 (-0.112)</td>
</tr>
<tr>
<td>Tenure heterogeneity</td>
<td>-0.367* (-1.855)</td>
<td>-0.388* (-1.904)</td>
<td>0.101 (0.526)</td>
</tr>
<tr>
<td>Organization size</td>
<td>0.04 (0.199)</td>
<td>0.105 (0.503)</td>
<td>0.39 (-1.979)</td>
</tr>
<tr>
<td>Organization type</td>
<td>-1.05 (-0.525)</td>
<td>-0.106 (-0.516)</td>
<td>0.117* (0.609)</td>
</tr>
<tr>
<td>R square</td>
<td>0.313</td>
<td>0.269</td>
<td>0.354</td>
</tr>
<tr>
<td>F</td>
<td>1.099</td>
<td>0.565</td>
<td>1.325</td>
</tr>
</tbody>
</table>

* p ≤ 0.10, ** p ≤ 0.05, *** p ≤ 0.01
Tenure heterogeneity is moderately and significantly related to expert performance ($\beta = -0.367, p \leq 0.10$) and to peer performance ($\beta = -0.388, p \leq 0.10$).

The heterogeneity variables express the direction of the difference. A positive score signifies that the artistic directors has a higher score on the variable than the managing director and a negative score that the artistic director has a lower score on the variable than managing directors. Also, VIF tests show that there is no cause for concern with regard to multicollinearity.

DISCUSSION AND CONCLUSIONS

Our research originated from the notion that pluralistic organizations perform a balancing act, reconciling different organizational goals, and that one way of handling this balancing act is by dividing the executive position along the organization’s main goals. We investigated organizations that were led by a team of mandated dual executive leaders with functionally separated roles and objectives. Our study investigated the effects of heterogeneity among the dual leaders, focusing on cognitive heterogeneity regarding the extent that each manager attached importance to favorably impressing particular types of evaluators – the top manager’s selection system orientation. Our results show that a specific type of selection system heterogeneity, as a form of cognitive heterogeneity between dual executive leaders in pluralistic organizations, relates to a specific type of organizational performance.

Our first main result is that the strength of dual leaders’ expert and market selection system orientations were significantly different. Managing directors had stronger expert and market selection system orientations than artistic directors. This result supports the findings of Houghton and Neubaum (1994) and Voss, et al. (Z. G. Voss et al., 2006), which suggests that top managers in different functional positions have different perceptions of their organization’s environment. Contrary to our expectations, we did not find substantial differences between artistic and managing directors in relation to their peer selection system orientations. One could argue that managing directors and artistic directors display the same attitudes, because they may have specific similarities in their backgrounds. However, this is not evident in our results. Another
explanation could be that managing directors in the high arts may have particular strong and positive attitudes towards the high art cultural industry, which is evident by their choice not to work in a for-profit environment.

Our second main result suggests that the stronger the expert orientation heterogeneity is – in which artistic directors have higher expert orientations than managing directors – the higher an organization’s performance along the expert dimension. This suggests that experts reward organizations in which artistic directors have a particularly pronounced concern regarding to expert opinions or are particularly aware of the importance of expert opinions. This specific result is in line with the generally positive relationships between cognitive heterogeneity and organizational performance, as has been found by Kilduff, et al. (2000) and Mello and Ruckes (2006).

Contrary to our expectations, we did not find significant relationships between peer orientation heterogeneity and peer performance nor between market orientation heterogeneity and market performance. The results in regard to peer orientation are hardly surprising since we already noted that artistic directors and managing directors did not significantly differ in their scores along that dimension, which makes it highly unlikely that the non-significant heterogeneity will have a significant effect on an outcome. It is more surprising that the heterogeneity with regard to market selection does not have an effect on organizational performance along that dimension. Maybe our results indicate that government support is the key to survival in our setting.

In the Netherlands, the decision makers who decide about government funding for theatre and dance companies are mainly experts who want these companies to be entrepreneurial and attract audiences, while delivering an innovative and artistic core product (NFPK+, 2008). The innovative and artistic value of a performance clearly is the cornerstone of a successful application. As already described in the setting of this study, without it high art organizations in the Netherlands are less likely to receive subsidies (Oosterbaan Martinius, 1990). In turn, this will increase the relative importance of the artistic director – even if the two directors are hierarchically equivalent – because it will be his or her reputation for artistic value and innovation that secures the subsidies (Oosterbaan Martinius, 1990; Van Klink, 2005).

Above, we already discussed a number of reasons why managing directors of the organizations we studied might have attitudes that are similar to those of the artistic directors. But even when this is not the case
and a market-oriented managing director would prefer to attract larger audiences and create higher market performance, he or she will not be likely to do so if the artistic director argues that this will compromise artistic value. This might be different for high arts organizations in countries, such as the United States, that operate in an environment in which corporate sponsoring and/or donations from wealthy private individuals are more essential to organizational survival than government subsidies (Zimmer & Toepler, 1999).

Next to our findings on selection system orientation heterogeneity, we find a weak relation between tenure heterogeneity and expert and peer performance. The longer the artistic director’s tenure and the shorter the managing director’s tenure the lower their organization’s expert and peer performance. We also find significant effects of age heterogeneity on expert performance. The higher the artistic director’s age and the lower the managing director’s age the higher their organization’s expert performance. It is possible that the seniority of the artistic director may function as a positive or even reassuring signal to experts and, therefore, lead to greater expert performance, while peers and market selectors will be less likely to associate seniority with a greater willingness to satisfy their preferences.

**Implications**

The fact that the dual leadership roles are occupied by individuals with rather similar beliefs and attitudes makes it less likely that the organization as a whole can benefit from the specific advantages a dual leadership structure can offer. This may result in unified identification of strategic issues, which leaves the possible advantage of information diversity underexploited. Research has argued that extremely low levels of heterogeneity may result in groupthink (Carpenter & Fredrickson, 2001). For high art organizations in the Netherlands, the present lack of heterogeneity among the dual leaders may result in lower abilities to achieve the core objectives in the longer term; especially in the present situation where the continuation of many government subsidies has become highly uncertain.

As noted before, pluralistic organizations exist in many industries, from newspapers to high tech, and in many such organizations there are dual leadership structures or top management teams in which each member is responsible for a specific organizational objective. This paper suggests that in these organizations’ specific packages of organizational role and organizational objectives imply also different selection system orientations.
of the dual leaders. For instance, the vice-president for technology development of a large software firm will likely have a stronger peer orientation than the vice president for marketing of the same company. As we have argued, the resulting cognitive heterogeneity could benefit organizational performance. Cognitive heterogeneity that can be readily observed by outside stakeholders could in itself also reinforce the image of the organization as one that is aware of its multiple objectives and knows how to manage them well, which in turn may significantly benefit performance.

Limitations
This study is limited by the particularities of the empirical setting and a relatively small number of organizations. However, we do have responses from a sizable part of this particular population.

Also, we only looked at high arts organizations – theatre and dance – that received some form of state support in the Netherlands. Whereas other European countries are similar to the Netherlands in respect to the role that government subsidies play in the income of high art organizations, the United States rely more on box office, private donations and corporate sponsorships. Europe and the United States also differ in respect to the average educational backgrounds of artistic as well as managing directors and the power of the supervisory boards or boards of directors.

Another limitation is that, in regard to performance measures, we have only the subjective estimates of the managers and were not able to acquire objective data that adequately represent performance along the dimensions we studied. Furthermore, there may be relevant factors that our model did not incorporate. For example, it could be that the financial position of the organization had a moderating effect on organizational performance.

Further research
Firstly, more research is needed to develop scales to measure selection system orientations in very different environments. Further research, in other national contexts, should validate both the underlying measures and the generalizability of the findings. Further insights may be found by investigating how the context (Johns, 2006) influences orientations and heterogeneity in orientations of the executives in the dual leadership structure. This study only looked at cultural organizations that received at least some financial support from government organizations. To establish the impact of this factor on the results, further research will have to include
cultural organizations that have not received government subsidies, but fully depend on ticket sales, corporate sponsorships or private donations. These organizations may be more polarized in terms of their objectives and have a more heterogeneous dual leadership structure. Secondly, the approach proposed in this paper could be applied to analyzing dual leadership and top management teams in other industries ranging from software development (Adler, 2005) to advertising (McLeod et al., 2009). In such organizations there can be tension between, on the one hand, achieving artistic or technological excellence in the eyes of peers or experts and, on the other hand, market success. Thirdly, future research may want to replicate this study in settings where the dual leaders were not selected by a supervisory board. It would be interesting to investigate how self-selection may mediate the relation between heterogeneity in orientation and organizational performance. Finally, when organizations have multiple organizational objectives and clear and agreed-upon performance measures are not available to the dual leaders, they may rely on their own perception of their organization’s performance along the multiple objectives to guide their future strategic decisions. Thus, in pluralistic organizations interpersonal differences in the perception of performance may also influence organizational choices and eventually performance. We hope that our study stimulates more research in this area.