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PUBLIC SECTOR LEADERS AND INSTITUTIONAL CHANGE: A STUDY OF THE ANTECEDENTS OF LEADERS' ADAPTIVE BEHAVIOUR IN DUTCH ARTS AND CULTURAL EDUCATION

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Abstract

Despite the increasing awareness that leadership behaviour is not only influenced by leaders' personal characteristics but also by contextual influences, empirical evidence on this topic stays behind (Yukl, 2010; Silvia and McGuire, 2010; Currie et al, 2009; Porter and McLaughlin, 2006). This article fills this contextual gap by looking at the factors influencing the way in which public sector leaders adapt to the changing institutional environment. Since the environment of public sector leaders is often very uncertain and ever-changing, it is interesting to study the leaders' adaptive behaviour toward environmental demands and constraints. Following several authors (Pulakos et al, 2002), this study sees adaptive behaviour as a multidimensional concept and therefore operationalized it into adaptive behaviour on an interpersonal and on a functional level. In this study, leaders in the Dutch arts and cultural education sector are examined. Regression analyses show that the more self-efficacious and motivated to change leaders are, the more they behave adaptively on an interpersonal level. Experience with changing institutional demands and the perceived degree of constraints coming from the institutional environment appear to influence adaptive behaviour on a functional level.

1 Introduction

During the past two decades, there has been an increasing demand for more attention for the role of context as a major factor affecting leadership behaviour (Porter and McLaughlin, 2006). Authors recognize that the behaviour of leaders is not just influenced by leaders' personal characteristics and that research should focus more on the contextual influences. Despite this awareness, empirical evidence stays behind (Yukl, 2010; Silvia and McGuire, 2010; Currie et al, 2009; Porter and McLaughlin, 2006). Grounded theoretical insights on how context influences leadership behaviour are consequentially lacking. This study attempts to fill this contextual gap.

In this study, leadership behaviour is looked at from an institutional perspective (Scott, 2001). In this perspective, organizations are regarded as open systems which are sensitive and responsive to the environment. Regulative, normative and cultural forces constrain and constitute organizations (Scott and Davis, 2007; Zaccaro et al, 1991). Organizations adopt certain procedures and practices, which serve to enhance their legitimacy in the eyes of important constituents within their environments (Currie et al, 2009).

In this research, the institutional perspective is not used to explain organizational behaviour, but more specifically, leadership behaviour in the public sector. The choice for leadership in the public sector is based on the claim made by Scott (2001, 158) that organizations which operate within or which are closely aligned with the public sector are more likely to be responsive to institutional pressures. As Van Wart (2005) says, leaders of public organizations are the ones who must deal with the demands of the environment. They are often confronted with an uncertain and ever-changing environment. For example, public sector leaders must manage their organizations in order to achieve goals which are imposed on them by the government or by means of laws and governmental regulations. These goals cannot be changed easily by a single leader, so it would appear that public sector leaders have little choice but to adapt to these environmental requirements. Moreover, it seems that environmental change is becoming a permanent feature. Nowadays, governments and parliaments experience a lot of change in composition. This means there is a lot of change in beliefs and opinions on how public sector organizations should function and what their tasks are. The short term often becomes more important than the long term visions and goals. There is also a growth in people or groups who can influence public organizations one way or another. These stakeholders ask for more accountability of (the leaders of) public organizations, higher quality and efficiency of products and services, and more customer oriented approaches (Currie et al, 2009; Rainey, 2003; Boyne, 2002; Goodwin, 2000; Gumport & Sporn, 1999).

In order to maintain legitimacy, it is expected of public sector leaders to react and adapt to the changing environment. This is examined more closely in this study which deals with the question what factors influence the adaptive behaviour of public sector leaders toward the changing institutional environment. More specifically, this study will test the assumption that adaptive behaviour is not only influenced by leaders' personal characteristics such as motivation, self-efficacy and experience, but also by constraints coming from the institutional environment.

Several authors regard the concept adaptive behaviour, also referred to as adaptability or adaptive performance, as important. However, only occasionally has the concept itself been studied more deeply. Pulakos et al (2000, 2002) performed a study of adaptive performance and confirmed the expectation that the concept is multidimensional. The present study builds on the notion of the multidimensional character of adaptive behaviour. It is expected there is a kind of adaptive behaviour in the interpersonal sense - this concerns issues such as social skills, handling work stress or searching for creative solutions - as well as adaptive behaviour

in a functional sense, which is about leaders reacting with different strategies toward environmental change such as budget cutting, expanding the organization's service offer or sharing accommodations with other organizations.

The empirical setting of this research is the Dutch arts and cultural education sector. It is interesting to study the adaptive behaviour of leaders in this public sector, since the institutional environment is uncertain and is undergoing a lot of changes. In 2010 the Dutch government announced large budget cuts for this sector. Organizations active in this field are dependent on subsidies of the national, regional and local government for a substantial part of their budget (60 percent or more). Also the idea that these organizations have to become more efficient and self-supporting, gets more firm ground in the national debate.

The relevance of the present study is twofold. First, theories on leadership behaviour in the public sector are lacking (Van Wart, 2005). Second, this study will provide more evidence of the concept adaptive behaviour of leaders, since both personal and institutional environmental factors will be examined. The relative influence of both types of independent variables will be made more clear.

The theoretical framework that supports this research will be discussed in the next section of this article. The manner in which the environment constrains public sector organizations and leaders in their behaviour will be examined from an institutional perspective. Also, it is reviewed what leadership theories have to say on adaptive behaviour and what personal characteristics influence leaders' behaviour. Finally, a model and hypotheses are presented. These will be tested on the basis of survey research, which section three will elaborate on. Section four deals with the research results and the final section offers a discussion of the theoretical and practical implications and shortcomings of this research.

2 Theoretical Framework

2.1 Leadership behaviour embedded in the broader environment

In the field of organizational behaviour generally, little attention has been paid to how the larger environment affects the behaviour of leaders (Porter and McLaughlin, 2006, p. 559). The majority of studies see leadership behaviour as a somewhat static phenomenon in a stable environment, according to Hunter and colleagues (2009). However, the authors claim that this is not the right way to look at leadership. Leaders face various stakeholders, such as subordinates, clients, suppliers, supervisors, governmental agencies and competitors on a daily basis. These stakeholders are in the position to ask different things of leaders and consequentially may constrain leaders in their choices and decisions. Clearly, leaders have to take their environment into account.

The view that leadership is influenced by the environment is recognized by more and more authors. Porter and McLaughlin (2006) reviewed the leadership literature from 1990 to 2005 to see how much real attention has been given to the organizational environment as a factor influencing leaders' behaviour. The authors conclude that there is too little empirical research on this topic and that future research should focus on the influence of the organizational environment. Besides organizational environmental factors like organizational culture, structure, characteristics and needs of employees, tasks and goals, Porter and McLaughlin recognize there is also a broader external environment influencing leadership behaviour. The influence of the wider environment on leadership behaviour is also increasingly recognized, but again, empirical evidence is lacking (Silvia and McGuire, 2010; Yukl, 2010; Hunter et al, 2009).

Recently, Currie et al (2009) studied the influence of the broader environment on leadership. This environment consists of actors such as governmental agencies that prescribe certain rules and laws, or professional associations that prescribe allegiance to certain principles. Actors in the institutional environment demand, expect and constrain leadership behaviour (Osborn and Marion, 2009).

2.2 The institutional perspective

Looking at organizations from an institutional perspective means that institutional processes influencing organizations are regarded as regulative, normative and cultural forces (Scott, 2001; Scott & Davis, 2007). Economists and political scientists look at institutions influencing organizations in the regulative way: systems of rules or of governance regulate organizational behaviour. Organizational actors conform to rules and laws in order to avoid sanctions. Here, the *logic of consequence* (where an actor makes those choices that are the most optimal for his personal wellbeing) can be detected. Sociologists, on the other hand, see institutions as normative systems. Norms are internalized by organizational actors, they are not externally enforced rules. Individuals share their norms and a normative structure exists. This normative structure steers social life, individuals behave according to what they consider appropriate (*logic of appropriateness*, Kjaer, 2004). Lastly, organizations are influenced by institutions in a cultural way. Anthropologists and organizational theorists view institutions as cultural-cognitive systems. People act not only based on their individual mental constructions, but also on common symbolic systems and shared meanings. Individuals interact to create common cognitive frameworks. Institutionalization from this perspective is the process in which acts are repeated and given similar meaning by the self and others (Scott & Davis, 2007).

Scott & Davis include the three perspectives on how institutions influence organizations within one framework. Institutions are composed of cultural-cognitive, normative and regulative elements that, together with associated activities and resources, provide stability and meaning to social life (2007, 258). Meyer & Rowan (1977, in: Scott & Davis, 2007) state that policies, programs and procedures of organizations are influenced by laws, the public opinion, views of important constituents and knowledge received in the educational system. In addition, organizations receive support and legitimacy to the extent that they conform to contemporary norms concerning the appropriate way to organize (Currie et al, 2009). Organizations which exhibit culturally approved forms and activities, which receive support from normative authorities, and which have obtained approval from legal bodies are more likely to survive than organizations lacking these evaluations. Legitimacy exerts an influence on organizational viability independent of its performance (Scott, 2001, 158).

The institutional environment influences organizations and organizational actors according to the institutional perspective, but does not determine organizational behaviour. Organizations are sensitive and responsive to the social environment, they are open systems (Scott & Davis, 2007). Open means that the processes and structures of these systems are considered in light of their relationships with an embedding environment (Zaccaro et al, 1991). In this perspective environments shape, support and infiltrate organizations (Scott & Davis, 2007, 31). Consequentially, the distinction between external and internal processes is blurred, one cannot see an internal organizational process separate from outside influences. Goals and requirements derive from social demands within this environment. Organizations are formed because the complexity of these demands require more than individual action. In order to survive, organizations must keep up with the changing environment and be capable of growth and adjustment. Hence, an organization must develop mechanisms and capabilities

that maximize proactive responsiveness and *adaptation* to changing and dynamic environmental conditions.

Therefore, the general orienting hypothesis in the open system perspective is that those organizations whose internal features match the demands of their environments, will achieve the best adaptation (Scott & Davis, 2007). The authors state that the challenge for researchers is to be clear about what is meant by the organization's internal features, the demands of their environments and the best adaptation. A lot of research states that different environments place different demands on organizations, so an uncertain and rapidly changing environment gives different constraints and opportunities to an organization than a clear and stable one does (Osborn and Marion, 2009).

The insights on how the institutional environment influences organizations are useful for the present study. However, whereas the institutional perspective studies the behaviour of organizations, this study looks at the behaviour of a specific organizational actor, specifically the behaviour of leaders. Following the open system perspective, it is expected that leaders have to react and adapt to institutional demands and constraints, in order to maintain legitimacy in the eyes of the institutional stakeholders. A similar expectation was held by Gumpert and Sporn (1999, in: Smart, 1999), who found that leaders of American higher education organizations have to deal with demands on costs and quality of education and effectiveness of the organization, coming from the institutional environment. The authors think leaders have to adapt to these demands in order to survive.

Thus, the present study expects that, for their organizations to have the right to exist, leaders of arts and cultural education organizations cannot ignore their institutional environments but must adapt to it. The factors influencing this adaptive behaviour is the focus of this study. However, before specifying which factors influence adaptive behaviour, it is necessary to be clear about what is meant by adaptive behaviour itself.

2.3 Leaders' adaptive behaviour

An increasing number of authors acknowledge that the environment of organizational actors is a turbulent one which undergoes a lot of changes. In order to keep up with this, it is important for organizational actors to be fast, adaptive learners (Karaevli and Hall, 2006; Pulakos et al, 2002). So adaptive individuals in this sense are humans who respond to their environment by adjusting themselves or their behaviour to it. When looking more closely at adapting, it appears to have a multidimensional character. For instance, adapting can occur at a behavioural, cognitive or socio-emotional level. A lot of different definitions circulate in the existing literature, like adaptability, adaptive performance or behaviour or competence to manage new learning experiences (Karaevli and Hall, 2006). There is also literature on concepts that are in some way related to adaptability, but are claimed not to be the same, such as flexibility or versatility. Confusion rises about what adapting or adaptability actually is and how to measure it (Pulakos et al, 2000).

According to Pulakos et al, in-depth empirical investigations on the concept of adaptability are lacking. These authors sought to clarify this by researching the behavioural aspect of adaptability, which they called adaptive performance. Through critical incident research, the authors found out adaptive performance consists of several elements. Based on this they developed and tested a taxonomy consisting of eight dimensions. These dimensions of adaptive performance are: (1) handling emergencies or crisis situations well, (2) handling work stress well, (3) solving problems in a creative way, (4) dealing with uncertain and unpredictable work situations, (5) learning (new) work tasks, technologies and procedures, demonstrating (6) interpersonal, (7) cultural and (8) physically oriented adaptability (Pulakos et al, 2000, 617). With this taxonomy, Pulakos et al think they cover all the dimensions of

adaptive behaviour. Nevertheless, the importance of the dimensions may vary between different jobs, sectors or situations.

This study also takes into account that adaptive behaviour is a multidimensional concept. The adaptive behaviour of leaders is defined as the degree in which leaders respond and adapt their behaviour to the changing institutional environment. This actual behaviour can occur in the various dimensions according to the taxonomy of Pulakos et al.

This study supports the claim that one cannot look at leadership behaviour separate from its institutional environment. In the beginning of this article, it is argued the institutional environment has a different influence on the public sector than on the private sector. In addition, it is also important to do justice to differences between types of public organizations. For example, in this research organizations active in the field of arts and cultural education are examined, which are for a great deal of their budgets dependent on governmental expenditures. Dutch hospitals on the other hand are also part of the public sector, but are not that dependent of the government for their budgets and are far more affected by governmental control and regulation. The institutional environment influences different public sectors differently, so it is important to take this diversity into account when carrying out research. Following the premise that the institutional environment influences the adaptive behaviour of leaders, this behaviour can also be different between public sectors. Leaders will respond to their institutional environment with different types of tactics and strategies. Therefore, besides the **adaptive behaviour** as defined by Pulakos et al, this study looks also at leaders' **adaptive strategies** in the arts and cultural education sector. The exact strategies that are relevant for this sector will be determined through document analysis, but one can think of possible adaptive strategies such as:

- Budget cuts, savings, downsizing the organization
- Expanding the organization's service offer
- Increasing capacity to earn own incomes
- Other accommodation/sharing accommodation with other organizations
- Additional tasks in order to increase incomes

The present study splits up the concept adaptive behaviour in interpersonal and functional adaptive behaviour, the two variables are expected to measure different aspects of adaptive behaviour. However, they both are adaptive behavioural variables, they do have something in common. Therefore, it is reasonable to expect a correlation between the two dependent variables. This is stated in the following hypothesis:

H₁: The higher the level of adaptive behaviour, the more adaptive strategies a leader can handle.

2.4 Antecedents of adaptive behaviour: leaders' personal characteristics

For more than half a century, leadership research has produced a lot of literature on personal characteristics as antecedents of leadership behaviour. The theory that personal traits or capabilities do in fact explain the behaviour of individuals has been extensively tested. The present study also expects that leaders adaptive behaviour can be partially explained by personal factors.

Such a personal factor is **behavioural flexibility**, which is similar to appropriate responding to different situational demands (Zacarro et al, 1991). Recently Yukl (2010) used the concept again and sees it as a relevant personal characteristic. He states that leaders with high behavioural flexibility know how to use a variety of different behaviours and are able to evaluate their behaviour and modify it as needed. During the 80's and 90's the concept has

been researched in two different ways. The first stream sees behavioural flexibility as a trait and researched it by operationalising it as self-monitoring (Zacarro et al, 1991). Self-monitoring is a human's ability to accurately assume social roles which may differ from one's internal state, disposition or attitude (Snyder, 1979 in: Zacarro et al, 1991). The authors found that leaders who are very well capable of self-monitoring are more capable of flexibly changing their behaviour to meet the demands of a specific situation than leaders who are low on self-monitoring.

The other stream sees behavioural flexibility not as an ability (trait) but as a capability. Paulhus and Martin (1987, 1988) see it this way and call the concept interpersonal functional flexibility. Capabilities refer to the *ease* with which an individual can exhibit a particular behaviour when the situation requires it. According to Paulhus and Martin, capability responses assess slightly different aspects of the individual than trait measures do. This is due to trait measures indicating an individual's *average* or most typical *manner* of behaving. Whether these kind of measurements give adequate representations of an individual's actual behaviour is questionable, according to Paulhus and Martin. The more flexible individual is the one who is *capable* of showing a wider range of situation appropriate behavioural responses that are both positive and negative in nature (Hall et al, 1998; Paulhus and Martin, 1987, 1988).

This study agrees with Paulhus and Martin. Behavioural flexibility is seen as the leaders' capabilities of showing a range of situation appropriate behavioural responses. It is expected that a leader who is more capable of behaving flexibly, will also behave more adaptively toward the institutional environment than a leader who is less behaviourally flexible. The assumption is that adaptability leads to adaptation (Hall et al, 2006; Van Wart, 2005; Pulakos et al, 2000; Zacarro et al, 1991; Paulhus & Martin, 1988). In this study, adaptability is defined as the capability to behave flexibly, adaptation as the actual adaptive behaviour. This leads to the following hypothesis:

H₂: Leaders' behavioural flexibility positively relates to adaptive behaviour.

Research on leadership behaviour has revealed that particular behaviours can be partly explained by a leader's motivation to show the behaviour. Zacarro et al (1991) also claim that a leader must be motivated in order to react flexibly. Flexible responsiveness can be very difficult and uncertain, a leader may be tempted to stick to a safe mode of operating. A strong **motivation** may provide an explanation for flexible responding.

Herold, Fedor & Caldwell (2004) found that managers with high self-efficacy to change are also more motivated to change. **Self-efficacy to change** refers to the degree in which individuals feel confident about their ability to handle adjustments. Also Judge et al (1999) found that individuals with a positive self-concept (which exists of self-esteem and self-efficacy) are more effective in coping with change than individuals with a low or negative self-concept. Karaevli and Hall (2006) claim that adaptability requires individuals to be resilient, positive and confident in their own personal change capability. These ideas lead to the following hypotheses:

H₃: Leaders' motivation (to change) relates positively to behavioural flexibility.

A strong motivation to change means a leader has a clear idea about the usefulness of changing. For this reason, it is assumed that a leader with a strong motivation to change, can behave more flexibly.

H₄: Leader's self-efficacy (to change) relates positively to behavioural flexibility.

Changing situations are characterized by uncertainty. When leaders have to adapt to new demands, they can be confronted with uncertainty, stress, the feeling to lose control and so on. High self-efficacy should defend individuals from possible adverse effects (Herold, Fedor and Caldwell, 2007; Judge et al,1999). The way in which a person reacts to change depends partially on the person's general confidence about coping with change successfully (Yukl, 2010). In this research, it is expected that efficacious or confident leaders are more capable to behave flexibly.

Something else that may influence the capability to react flexibly is a leader's **experience**. A leader who has had past experiences with changing demands from stakeholders, may be more capable to cope with similar situations in the present than an inexperienced leader (Yukl, 2010). Through experience a leader can acquire many different behavioural responses and thus become behaviourally flexible. This leads to the following hypotheses:

H₅: The more experience a leader has with institutional demands, the higher the level of behavioural flexibility is.

H₆: The more experience a leader has with institutional demands, the higher the level of adaptive behaviour is.

As several authors claim, a high level of self-efficacy, motivation and experience can lead to a high level of adaptation. In the present study, the variable behavioural flexibility is added to this relationship, since it is expected that an individual who is *capable* of behaving flexibly, will actually *behave* adaptively too. As argued before, self-efficacy and motivation to change are expected to relate to behavioural flexibility, which is supposed to mediate between these two variables on the one and adaptive behaviour on the other hand. Although experience is a personal variable, in this study the variable is a contextualized one, since it is about experience with changing demands coming from the institutional environment. This variable is expected to directly relate to adaptive behaviour (hypothesis H₆), which means that the expected mediation effect of behavioural flexibility between experience on the one and adaptive behaviour on the other will be partially. This all leads to the following hypothesis:

H₇: The effect of a leader's self-efficacy to change, motivation to change and experience with institutional demands on adaptive behaviour is mediated by the leaders' behavioural flexibility.

It is presumed that experience with institutional demands not only affects behavioural flexibility, but also directly influences adaptive behaviour. Past experience with different demands from stakeholders could for example mean that a leader is more capable of solving problems creatively or can handle work stress with more ease. According to Pulakos et al (2002), past experience is the best predictor of future performance. Karaevli and Hall (2006) say that through institutional and functional experiences, leaders can increase their adaptability competences, which help them to actually adapt. Applying all of these insights to this study, means that a leader's experience with changing demands not only has an effect on behavioural flexibility, but also on adaptive behaviour.

H₈: The more experience a leader has with institutional demands, the more adaptive strategies (s)he can handle.

It is hypothesized that the more different demands have been experienced in the past, the more different strategic reactions a leader may be aware of and thus applies them at present.

2.5 Antecedents of adaptive behaviour: institutional characteristics

This study not only expects a leader's personal characteristics to influence the adaptive behaviour toward the institutional environment, but also that institutional factors influence the adaptive behaviour. Following the institutional perspective, demands coming from the institutional environment are constraining organizational actors as leaders. In order to survive and maintain legitimacy, leaders have to adapt to these demands (Scott, 2001). Van Wart (2005) sees the influences of the environment as environmental constraints, which are 'relatively structural or long-term elements that set parameters of limitations on the leader's range of choices' (p. 55). Environmental constraining takes place in a legal or contractual way. Other authors also define context as the overall set of demands, constraints and choices for leaders (Stewart, 1982 in: Osborn and Marion, 2009). Following this notion, the present study examines leaders' experience with changing institutional demands (as explained before) and the perceived degree of institutional constraints. It is expected that laws, rules or policies coming from the government or governmental agencies constrain leaders of arts and cultural education organizations in their behaviour. These leaders simply cannot ignore it, because their organizations are highly dependent on the government's expenditures. Perceived **institutional constraints** will influence a leader's adaptive behaviour in a positive way.

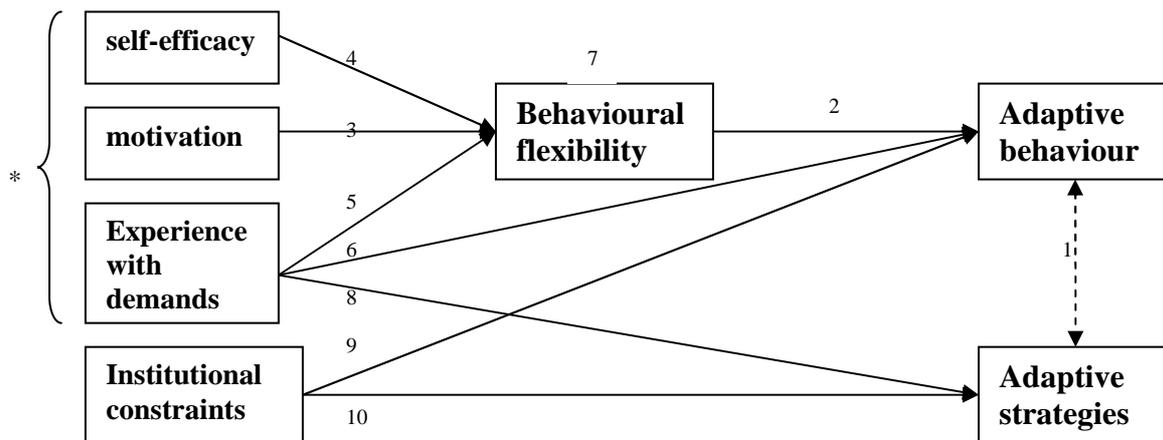
However, some research claims that organizations cannot adapt to large institutional changes. In a conceptual article about organizational transformation during institutional upheaval, Newman (2000) suggests a reversed U-shape, where at a specific point organizations cannot react properly anymore. This is because changes are too extreme. Here, the institutional context no longer provides organizing templates, models for action and known sources of legitimacy. Existing resources and capabilities become outdated (p. 605). A more or less similar proposition arose from a case study by Fox-Wolgramm et al (1998) on organizational adaptation to institutional change. The authors state that organizations whose identity and image are inconsistent with institutional demands for change, will resist change attempts and that change will not be sustainable. Also, if change is inconsistent with an organization's current or envisioned identity it will lead to an aborted excursion adaptation track (1998, 120-122). These insights lead to the following hypotheses:

H₉: The more constraints a leader faces – up to a certain point where too many constraints incapacitate a leader - the higher the level of adaptive behaviour is.

H₁₀: The more constraints a leader faces – up to a certain point where too many constraints incapacitate a leader - the more adaptive strategies (s)he can handle

This study expects that the more they are confronted with institutional constraints, the higher the level of the leaders' adaptive behaviour on an interpersonal and functional level is. Leaders cannot ignore the constraining environment and are forced to adjust their behaviour toward it. However, in the line of reasoning of Newman (2000) and Fox-Wolgramm et al (1998), too many constraints may incapacitate a leader. The constraints may be too extreme meaning that adapting becomes impossible.

Figure 1 presents a model that summarizes the way in which personal and institutional factors are related to behavioural flexibility, adaptive behaviour and adaptive strategies in this study.



* = personal characteristics. Note: experience is a personal characteristic, institutional demands is about the environment. Thus, the variable experience with demands is on the interface of personal and institutional factors.
1 = number of hypothesis.

Figure 1. Conceptual model

3 Method

3.1 Organizations and Response

This study targeted 170 directors of Dutch arts and cultural education organizations. 90 percent of all organizations active in the arts and cultural education field are a member of the foundation Kunstconnectie, which serves as a business association. Via this foundation, access to the directors of cultural educational organizations was gained. 170 surveys were distributed, 94 completed questionnaires were returned. This means a response rate of 55 percent. The sample consists of 63 males and 29 women and the average age of the directors was 53 years. A reason for non-response could be the fact that the period in which the questionnaire was distributed (end of April and the beginning of May 2011) counts several national free days and a holiday period of more than one week.

There is no reason to suppose that the directors who completed the questionnaire are not representative of the arts and cultural education sector. Information coming from the business association's population database corresponds with the sample characteristics in this study, as provided in the results section. However, the results of this study cannot be generalized to leaders in other segments of the public sector or to the public sector as a whole. As explained before, the institutional environment differs between public sectors and thus the adaptive behaviour of leaders toward it too.

3.2 Measurements

The original scales used and adapted in this research were in various response formats. For example, one instrument used a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), while another one used a 6-point scale ranging from 1 (*very untrue of me*) to 6 (*very true of me*). Preceding research has suggested that changing different response formats into a universal scale does not affect the validity of the research (Judge et al, 1999). For the clarity of the questionnaire for respondents, all measures in this study used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The complete list of items can be found in appendix A.

Self-efficacy to change refers to an individual's beliefs about one's competency to deal with changing environmental demands. Items for this scale were adapted from Chen et al's (2001) scale to measure general self-efficacy and from the scale to measure self-efficacy to change by Herold, Fedor and Caldwell (2007). The items were made specific for this research, which resulted in an 8-item scale. An example of an item is "When facing difficult changes in my environment, I am certain that I can deal with them." After recoding two negatively stated items, Cronbach's Alpha was acceptable at 0.74. The 8 items were summed to form one variable.

Motivation to change refers to an individual's willingness to change in response to environment demands. To measure the respondent's motivation to change, a 6-item scale was developed, with the usage of 2 items of the 4-item scale to measure commitment to change by Fedor et al (2006). Four items were added by the researcher herself, in order to be sure the concept is measured. "I am fully supportive of adapting to environmental wishes" is one item used in this research. Cronbach's Alpha for the 6 items was 0.64. In social science research, an acceptable reliability is considered at least 0.70 (Nunnally, 1978). An inspection of the inter-items' correlations revealed that the two negatively formulated items correlate very lowly or negatively with the other items. Removing the two negatively formulated items resulted in a Cronbach's Alpha of 0.80, which is good. For these reasons, the 4 reliable items were summed to form one variable.

Experience with demands refers to an individual's past experiences with dealing with demands coming from the institutional environment. Because no measure of a leader's experience with environmental demands could be found in the literature, this variable is measured by a scale originally developed by the researcher. This resulted in a 4-item scale, which includes items like "In the past 5 years I have experienced the necessity to make budget cuts". Cronbach's Alpha was 0.51, which is unsatisfactory. Removing items does not result in a higher reliability score. An exploratory factor analysis points out that factor loadings are between 0.45 and 0.74, which is good. Considering the fact that this scale is developed by the researcher herself and that the exploratory factor analysis suggests 1 factor, the scale is not removed from further analysis.

Institutional constraints refers to an individual's perceived degree of constraints coming from the institutional environment, placed on the individual. Van Wart (2005) developed a three-item scale to measure the degree of internal and external constraints placed on the leader of an organization. The general question of his instrument has been used in this research, in order to determine the degree of institutional constraints. A four-item scale resulted. Respondents were asked to rate the degree of constraints placed on themselves by the municipal, provincial and ministerial policies on cultural education and by other agreements with organizations in their external environment. Cronbach's Alpha was acceptable at 0.72.

Behavioural flexibility refers to an individual's repertoire of interpersonal behaviours. This is measured by asking whether a person thinks (s)he is capable of showing certain types of behaviours in appropriate situations. This method is developed by Paulhus and Martin (1988), which they called the Battery of Interpersonal Capabilities. This study took six of the original sixteen behaviours, which are dominant, ambitious, gregarious, submissive, quarrelsome and calculating. For each behaviour, respondents are asked to answer a global capability statement "when the situation requires it, I can behave dominant". Besides this, respondents have to answer three statements per behaviour on the difficulty and the anxiety of performing the behaviour and the tendency to avoid situations demanding the behaviour. After recoding the items on difficulty, anxiety and avoidance, Cronbach's Alpha for the 24 items was 0.88, which is very good. An exploratory factor analysis with varimax rotation pointed out that the items belonging to the behaviours dominant, ambitious and quarrelsome

load on the first factor, the items belonging to gregarious on the second, the items belonging to submissive on the third and the items belonging to calculating on the fourth factor. This seems very plausible, since dominant, ambitious and quarrelsome are all behaviours that can be described as aggressive, while gregarious, calculating and submissive clearly cannot. Individuals who behave gregarious can be described as nurturing or more sensitive of the social environment. Calculative behaviour is something different, since this is behaviour in order to maximize (personal) profits. Submissive behaviour is the opposite of dominant behaviour. These are possible explanations for the 4 factors found.

Adaptive behaviour refers to the degree in which an individual responds and adapts his or her behaviour to the changing institutional environment. Pulakos et al (2000, 2002) developed an instrument to measure adaptive performance in the workplace, the so called Job Adaptability Inventory (JAI). The JAI exists of eight dimensions, which are appropriate behavioural responses to the environment. This study has applied the JAI to the Dutch sector of arts and cultural education and used five of the original dimensions, that together measure adaptive behaviour. The dimensions are handling work stress, solving problems creatively, dealing with uncertain and unpredictable situations, learning work tasks, technologies and procedures, and demonstrating cultural adaptive behaviour. The researcher developed for each dimension four or five items, in total the scale counts 21 items. An example of an item for the dimension handling work stress is “When workload is high, I can remain calm and stable” and for the dimension dealing with uncertain and unpredictable situations “When an unexpected situation occurs, I can adjust my behaviour to it”. Cronbach’s Alpha for the 21 items was 0.81, which is good. The variable adaptive behaviour is expected to consist of 5 sub-dimensions, therefore a factor analysis with a fixed number of factors (5) has been carried out. The normal component matrix revealed that all items load on the first factor, except 4 items. After deleting these items, an exploratory factor analysis with varimax rotation showed that the items belonging to dimension 1 load on the 5th factor, the items belonging to dimension 2 on the 2nd factor, items belonging to dimension 4 on the 1st and items belonging to dimension 5 on 3rd factor. Items belonging to dimension 3 did not load on the same factor. The factor analysis provides sufficient support for the assumption that the variable adaptive behaviour consists of sub-dimensions. Cronbach’s Alpha for the 17 items was .84.

Adaptive strategies refers to an individual’s specific reactions to institutional environmental changes. This variable is developed to assess the specific adaptive strategies leaders in the Dutch arts and cultural education sector use in reaction toward their institutional environment. The scale consists of the dimensions financing, municipal financing, services’ supply, housing and cooperation. Each dimension is made up of three, four or five items, in total the scale exists of 23 items. Since the intention was to measure the sector specific adaptive strategies, the items are developed by the researcher herself. Several documents from the last three years on the activities of organizations in the arts and cultural education field and their connections and legitimacy to the outside world were analyzed, before making up the final scale. Cronbach’s Alpha for the 23 items was 0.83, which is good. The variable adaptive strategies is expected to consist of 5 dimensions, therefore a factor analysis with a fixed number of factors (5) has been carried out. The normal component matrix revealed that all items load on the first factor, except for two items. After deleting these items, it appeared that 5 items belonging to dimension 1 financing load on the first factor and the other 4 items on factor 3. This makes sense, since the 5 items loading on the first factor are items about private sponsors or income sources, the 4 items loading on the 3rd factor are items about non-profit sponsors or income sources. This means the dimension financing consists of two sub-dimensions, namely private financing and non-profit financing. The items belonging to dimension 2 load on the 2nd factor, the items belonging to dimension 3 on the 5th factor, items

belonging to dimension 4 on the 4th factor and items belonging to dimension 5 on the 2nd factor. Cronbach's Alpha for the 21 items was .84.

The measurements of the independent variables as well as the dependent variables are determined by surveying the directors of the arts and cultural education organizations themselves, which means the problem of common method bias can occur (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To deal with this issue, the measures for the independent and for the dependent variables were placed in different sections of the questionnaire.

Also some CFA's are conducted for the items measuring the independent variables and the items measuring the dependent variables, to check for common method variance (Podsakoff et al, 2003). The hypothesized two or three-factor structures were compared with a one-factor structure. A well fitting one factor model should indicate there is a bias stemming from common method variance. The fit indices for the different models indicated that the one-factor models had a poorer fit than the multiple factor models, which provides evidence against there being a bias.

The data analysis in the next section involved a number of steps. First, some characteristics of the directors are given. This is done because relatively little is known about directors in the Dutch arts and cultural education sector. Also some descriptive statistics for all the variables used in the analyses are presented. Next, correlation analyses are conducted for all the variables, to test whether the hypothesized relations exist. A correlation analysis is not a very robust technique and causal relations can not be detected with it. For this reason, regression analyses are conducted. To test for and demonstrate the expected mediation effect of behavioural flexibility on adaptive behaviour (H₇), the procedure described by Baron and Kenny (1986) is followed.

4 Results

Around two thirds of the directors finished a higher professional education and around one third finished a university education. Directors are in their function for an average number of 10 years. The average size of the directors' organizations is about 34 FTE (fulltime equivalent). 41 percent of the directors organizations cover a service area between 30 000 and 90 000 inhabitants, 53 percent cover an area of more than 90 000 inhabitants. The largest share of the directors (80 percent) reported that their organizations are foundations with a private law status, the other 20 percent are civil services. 19 percent of the directors reported their organizations have recently merged, most of the mergers came about by 2005 or later.

Table 1 shows that directors report high scores for self-efficacy to change (4.05) and motivation to change (3.96). They report a mid-level of experience with changing demands coming from the institutional environment (2.99) and they perceive a low level of institutional constraints (2.48). Directors show high scores on behavioural flexibility (3.98), adaptive behaviour (3.91) and adaptive strategies (3.83).

Table 1. Descriptive statistics and correlations for the variables used.

	M (sd)	A	B	C	D	E	F	G
A. Self-efficacy	4.05 (.40)	1						
B. Motivation	3.96 (.60)	.29**	1					
C. Experience	2.99 (.78)	-.13	.16	1				
D. Constraints	2.48 (.85)	.01	.16	.22*	1			
E. Behavioural flexibility	3.98 (.46)	.37**	.22*	-.18	.08	1		
F. Adaptive behaviour	3.91 (.40)	.57**	.43**	.02	.09	.35**	1	
G. Adaptive strategies	3.83 (.52)	.14	.26**	.43**	.37**	.18	.33**	1

* $p < .05$ (1-tailed)

** $p < .01$ (1-tailed)

The results of the correlation analysis confirm the first hypothesis H_1 : there is a modest positive relation between the level of adaptive behaviour and the level of adaptive strategies directors report ($r=.33$, $p<.01$).

There is also a modest positive correlation between the reported level of behavioural flexibility and the level of adaptive behaviour ($r=.35$, $p<.01$). This confirms hypothesis H_2 .

The correlation between motivation to change and behavioural flexibility is also modest: .22 ($p<.05$), as is the correlation between self-efficacy to change and behavioural flexibility ($r=.37$, $p<.01$). These results confirm hypothesis H_3 and H_4 .

The reported experience with changing demands coming from the institutional environment, does not significantly correlate with the level of behavioural flexibility ($r=-.18$) and besides is negative. This is contrary to what is expected in hypothesis H_5 , hence the hypothesis is rejected. The correlation between experience and adaptive behaviour is almost zero and non-significant ($r=.02$), which rejects hypothesis H_6 . Experience does significantly correlate with adaptive strategies ($r=.43$, $p <.01$), which confirms hypothesis H_8 .

The perceived degree of institutional environmental constraints does not significantly correlate with adaptive behaviour ($r=.09$), but does positively correlate with adaptive strategies ($r=.37$). The scatter plots reveal no clear pattern between constraints and adaptive behaviour, which definitively rejects hypothesis H_9 . The scatter plot for constraints and adaptive strategies reveals a slight reversed U-shape (see figure 3). A breakpoint can be detected: when the value of institutional constraints becomes 3.00, the level of adaptive strategies is decreasing instead of increasing. A correlation analysis of the cases before the breakpoint reveals a significant positive correlation between constraints and adaptive strategies ($r=.37$, $p<.01$), the correlation between constraints and adaptive strategies after the breakpoint is negative ($r=-.37$, $p<.01$). This is in line of expectations, hypothesis H_{10} can be confirmed. The correlation matrix for the two variables can be found in table 3.

Besides the expected correlations, also some unexpected significant correlations were found. There exists a strong positive correlation between self-efficacy to change and adaptive behaviour ($r=.57$, $p<.01$). The reported level of motivation to change has also a positive correlation with adaptive behaviour, although somewhat lower ($r=.43$, $p>.01$). Motivation to change also positively correlates with the level of adaptive strategies (.26, $p<.01$). These two variables - self-efficacy and motivation to change - modestly correlate with each other in a positive way ($r=.29$, $p<.01$). Also experience with institutional demands and perceived institutional constraints correlate modestly with each other ($r=.22$, $p<.05$).

In order to draw conclusions about the mediating nature of the relationship between the personal factors and adaptive behaviour (hypothesis H₇), regression analyses are required. Regression analyses are also required in order to be sure about the influence of the hypothesized independent variables on the dependent variables.

In hypothesis H₇, behavioural flexibility is expected to be a mediating variable between on the one hand self-efficacy to change, motivation to change and experience with demands and on the other hand adaptive behaviour. Since experience with demands did not correlate with behavioural flexibility and adaptive behaviour, this variable is removed from this specific regression analysis. To demonstrate a mediating effect, according to Baron and Kenny (1986, p. 1176), three conditions must be met:

1. variations in the levels of the independent variable must significantly account for variations in the presumed mediator (path a);
2. variations in the mediator must significantly account for variations in the dependent variable (path b);
3. when paths a and b are controlled for, any previously significant relationship between the independent and dependent variables must no longer be significant.

On the basis of table 1 it can be concluded that self-efficacy and motivation to change have a moderately strong positive relationship with behavioural flexibility (.37 and .22, see table 1), which satisfies condition 1. In a simple regression analysis, behavioural flexibility does significantly predict adaptive behaviour (B=.28, see model I in table 2.1), which satisfies condition 2. However, the relationship between behavioural flexibility and adaptive behaviour becomes non-significant when the variable self-efficacy to change is added to the regression analysis (see table 2.1). Instead, the relationship between self-efficacy and motivation to change with adaptive behaviour remains still significant. This does not satisfy condition 3, which means behavioural flexibility does not mediate the relationship between self-efficacy and motivation to change with adaptive behaviour, hence hypothesis H₇ is rejected.

A multiple regression analysis points out that only self-efficacy significantly predicts behavioural flexibility, while motivation is non-significant (see table 2.2). This rejects hypothesis H₃.

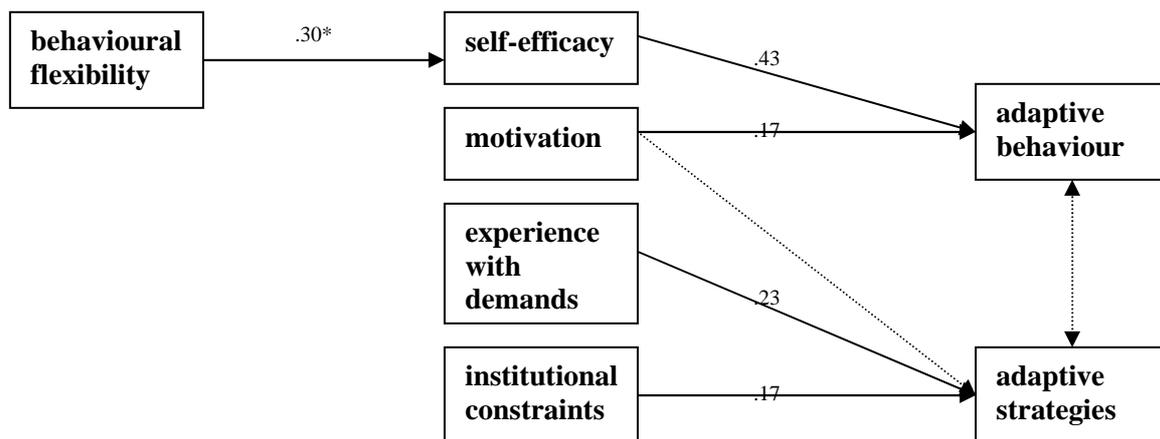
The above results indicate no mediating effect of behavioural flexibility between self-efficacy to change and adaptive behaviour, but instead point toward self-efficacy to change being a mediating variable. Behavioural flexibility has a moderately positive relationship with self-efficacy to change (.37, see table 1), which satisfies condition 1. Self-efficacy to change has a strong positive relationship with adaptive behaviour (b=.49, see table 2.3), which satisfies condition 2. Finally, while there was a significant positive relationship between behavioural flexibility and adaptive behaviour (b=.28, see table 2.3), this relationship becomes non-significant when self-efficacy to change is added to the model (see table 2.3). This satisfies condition 3, indicating that self-efficacy to change is the mediating variable.

In hypotheses H₈ and H₁₀ the variables experience with demands and institutional constraints are expected to influence adaptive strategies. Since the correlation analysis shows that motivation to change is positively correlated with adaptive strategies, this variable is also introduced in regression analyses with adaptive strategies as the dependent variable. A multiple regression analysis with the here fore mentioned variables shows that motivation does not significantly predict adaptive strategies, while institutional constraints and experience with institutional demands do (respectively b=.17 and .23, see model I in table 2.4). This confirms hypotheses H₈ and H₁₀.

As said before, adaptive behaviour and adaptive strategies are significantly correlated with each other (r=.33, see table 1). A simple regression analysis makes clear that adaptive behaviour significantly predicts adaptive strategies (b=.49, see table 2.5), but adaptive

strategies also significantly predicts adaptive behaviour ($b=.27$, see table 2.6). Assuming that adaptive behaviour would be the causal and adaptive strategies would be the outcome variable, adaptive behaviour would be the mediating variable between self-efficacy and adaptive strategies. This assumption is not tenable however, since self-efficacy to change has no relation at all with adaptive behaviour (see table 1). These results show that the precise nature of the relationship between the two dependent variables cannot be made clear on the basis of this research.

In the figure below, the results of this study are graphically shown. The two dotted arrows represent correlations, the uninterrupted arrows are significant predictors according to regression analyses.



Unstandardized regression coefficients are shown.

* see table 2.7 for the results of the regression analysis of behavioural flexibility on self-efficacy.

Figure 2. Final model

5 Conclusions and Discussion

This research examines the factors influencing the adaptive behaviour of directors in the Dutch arts and cultural education sector toward the changing institutional environment. It appeared that the directors score themselves rather highly in terms of the adaptive behaviour and adaptive strategies they expose. They also regard themselves as self-efficacious and motivated to change. They reported lower levels of experience with changing demands coming from the institutional environment and the degree of institutional constraints placed on them, although it should be noted that the standard deviations of these two variables are rather high. This indicates that some directors have more experience with changing institutional demands or a constraining institutional environment than others.

On the basis of the results of multiple regression analyses, it has to be concluded that the variable behavioural flexibility does not act as a mediator, but instead self-efficacy to change mediates the relationship between behavioural flexibility and adaptive behaviour. Theoretically, this could make sense. Individuals who think they are highly flexible in their behaviour could become more self-efficacious to change and hence can adapt their behaviour more easily toward changing circumstances. A direct relation between self-efficacy to change and adaptive behaviour is plausible, as some authors think that confident individuals can adapt easily (Yukl, 2010; Karaevli and Hall, 2006).

Regression analyses also showed on the one hand that self-efficacy and motivation to change predict adaptive behaviour and that on the other hand experience with changing institutional demands and institutional constraints predict adaptive strategies (see the final model). Following Pulakos et al (2000), this study sees adaptive behaviour as a

multidimensional concept. The variable adaptive behaviour is in this study therefore defined as adaptive behaviour in an interpersonal sense and the variable adaptive strategies is adaptive behaviour on a functional or strategic level. Self-efficacy and motivation to change are variables that are personal characteristics. The adaptive behaviour on the interpersonal level appears to be affected by two personal variables. Even though experience is a personal variable, experience with changing demands coming from the institutional environment is a contextualized variable, as is the degree of institutional constraints too. These variables report the way in which directors perceive the environment. Adaptive behaviour on a strategic level appears to be influenced by the two variables measuring the impact of the institutional environment, although a note has to be made on the relationship between institutional constraints and adaptive strategies. A scatter plot confirms this study's expectation that the more constraints a leader faces, the more adaptive strategies (s)he can handle, but that this positive relation will be up to a certain point where too many constraints incapacitate a leader. When the perceived degree of institutional constraints is 3.00, the reported level of adaptive strategies declines. Correlation analyses confirm the inverted U-curve.

Although hypothesized, the degree of institutional constraints and experience with environmental demands does not affect the level of interpersonal adaptive behaviour leaders expose. Nevertheless, it seems very plausible that experience does influence an individual's interpersonal adaptive behaviour. In this study, experience was operationalized in a rather contextualized way and, for example, not defined as general experience with situations in which interpersonal adaptive behaviour was required. This could provide an explanation for the non-significant relationship between experience and interpersonal adaptive behaviour.

As said before, this study sees adaptive behaviour as multidimensional and hence operationalized it as interpersonal and strategic adaptive behaviour. There appears to be a relationship between the two dependent variables ($r=.33$, $p=.00$). Unfortunately, this study cannot detect the causality in this relation. Regression analyses seem to tend toward an effect of adaptive behaviour on adaptive strategies (the regression coefficient is $.52$ versus a coefficient of $.27$ for adaptive strategies influencing adaptive behaviour), but more definite conclusions cannot be reached on the basis of this dataset. It could also be that the correlation between the two dependent variables is spurious, and a third unknown variable explains the two variables.

To conclude, this research confirms that adaptive behaviour is a multidimensional concept. It adds to the literature on adaptive behaviour by suggesting an extra dimension, namely strategic or functional adaptive behaviour. The institutional environmental factors in this study appear to influence this kind of adaptive behaviour. These results support the claim that leadership behaviour is embedded in the environment and that context does matter. Leaders are constrained in their strategic choices by their environments. Unfortunately this study could not confirm the claim that the institutional environment also influences the amount of interpersonal adaptive behaviour leaders expose. The present study confirms that this kind of behaviour is influenced by a leader's personal characteristics such as self-efficacy and motivation to change. The relative influence of the personal and contextual variables on the adaptive behaviour of leaders in a specific public sector have been made clear by this research. This contributes to the literature on public sector leadership behaviour, but the results of this study should not be generalized to the public sector as a whole.

This last conclusion brings us to some limitations of the present study. First of all, this study is based on cross-sectional data, which means that unambiguous conclusions on causality cannot be made. Also the development of the leaders' adaptive behaviour cannot be assessed in this way. Since experience appears to have an effect on the adaptive strategic behaviour of leaders, it would be interesting to see how this behaviour develops over time. Therefore, future research should take a longitudinal design. Secondly, this research relies on

the amount of adaptive behaviour leaders report themselves. Employees or even higher supervisors such as board members could differ in their opinion on the leaders' adaptive behaviour. Besides, individuals tend to assess their own behaviour slightly better than another person would do. In this study, leaders assessed their own interpersonal adaptive behaviour rather high ($M=3.93$), which could indicate a bias. However, the respondents also reported high levels on the independent variables self-efficacy and motivation. High reports on both the independent and dependent variables do not really bias the results, as regards the correlations between the variables. Nevertheless, it could be interesting to see whether or not leaders differentiate in the assessment of their own adaptive behaviour from other persons. Future research should have a multilevel design, in order to compare leaders' own reports with the opinions of others. Third, this study aimed to investigate the influence of context and therefore collected data in one specific public sector. This means that the findings are not supposed to and cannot be generalized to the public sector in general. However, it would be very interesting to compare the adaptive behaviour of leaders in different public sectors with each other and to see whether there are differences in the variables influencing this behaviour. In this way, the role of specific institutional environments could also become more clear. Fourth, conclusions on the causal relationships in the final models have to be confirmed with the help of techniques like structural equation modelling. This can only be done with large samples, future research should take this into account.

Besides the above suggestions, future research should also investigate what the influence is of leaders' adaptive behaviour on organizational performance. It sounds highly plausible that a leader who is adaptive to the environment, knows how to react and which strategy to use, has a positive influence on the organizational performance. This assumption should be studied in future empirical research.

This research shows that public sector leaders have to be very confident and motivated to change in order to successfully adapt their behaviour to changing circumstances. It also shows that the amount of strategic adaptive behaviour of leaders in the arts and cultural education sector, depends partly on the way in which the institutional environment is constraining leaders ($B=.17$). However, experience with environmental demands explains adaptive strategies for almost the same amount as institutional constraints does ($B=.21$). Experience has a positive influence on the use of adaptive strategies. This suggests that by gathering experience, leaders can increase their own strategic adaptive behaviour. Hence, it could be interesting for public sector leaders with little experience to consult their more experienced colleagues, in order to become more adaptive. The experienced leaders can in this way transfer their knowledge.

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Table 2.1 Results of the regression analyses

	I	II	III
Self-efficacy			.43 (.10)**
Motivation		.24 (.07)**	.17 (.06)**
Behavioural flexibility	.28 (.10)**	.22 (.09)*	.11 (.09)
Constant	3.13 (.57)**	2.34 (.57)**	1.19 (.57)*
F	3.40**	5.49 **	8.84**
R	.39	.52	.65
R ²	.15	.27	.42
Adjusted R ²	.11	.22	.37

Notes

a. Dependent variable adaptive behaviour, unstandardized regression coefficients are shown. Standard error between parentheses.

b. Gender, age and level of education were added as control variables (all non-significant).

c. * p < .05, ** < .01.

d. Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 2.2 Results of the regression analyses

Self-efficacy	.35 (.13)**
Motivation	.08 (.08)
Constant	2.76 (.69)**
F	3.41**
R	.43
R ²	.18
Adjusted R ²	.13

Notes

a. Dependent variable behavioural flexibility, unstandardized regression coefficients are shown. Standard error between parentheses.

b. Gender, age and level of education were added as control variables.

c. * p < .05, ** p < .01.

d. Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 2.3 Results of the regression analyses

	I	II
Self-efficacy		.49 (.10)**
Behavioural flexibility	.28 (.10)**	.13 (.09)
Constant	3.13 (.56)**	1.59 (.58)**
F	3.40**	8.31 **
R	.39	.60
R ²	.15	.36
Adjusted R ²	.11	.32

Notes

a. Dependent variable adaptive behaviour, unstandardized regression coefficients are shown. Standard error between parentheses.

b. Gender, age and level of education were added as control variables.

c. * p < .05, ** p < .01.

d. Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 2.4 Results of the regression analyses

Motivation	.14 (.09)
Constraints	.17 (.07)*
Experience	.23 (.07)**
Constant	2.07(.57)**
F	4.99 **
R	.54
R ²	.29
Adjusted R ²	.23

Notes

- Dependent variable adaptive strategies, unstandardized regression coefficients are shown. Standard error between parentheses
- Gender, age and level of education were added as control variables (all non-significant).
- * $p < .05$, ** $p < .01$
- Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 2.5 Results of the regression analysis

Adaptive behaviour	.49 (.15)**
Constant	1.26 (.78)
F	3.04*
R	.37
R ²	.14
Adjusted R ²	.09

Notes

- Dependent variable adaptive strategies, unstandardized regression coefficients are shown. Standard error between parentheses.
- The control variables gender, age and level of education are added (all non-significant).
- * $p < .05$, ** $p < .01$.
- Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 2.6 Results of the regression analysis

Adaptive strategies	.27 (.08)**
Constant	3.51(.43)**
F	4.15**
R	.43
R ²	.18
Adjusted R ²	.14

Notes

- Dependent variable adaptive behaviour, unstandardized regression coefficients are shown. Standard error between parentheses.
- The control variables gender, age and level of education are added (all non-significant).
- * $p < .05$, ** $p < .01$.
- Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 2.7 Results of the regression analysis

Behavioural flexibility	.30 (.09)**
Constant	3.15(.55)**
F	3.38**
R	.38
R ²	.15
Adjusted R ²	.10

Notes

- a. Dependent variable self-efficacy to change, unstandardized regression coefficients are shown. Standard error between parentheses.
- b. The control variables gender, age and level of education are added (all non-significant).
- c. * p < .05, ** p < .01.
- d. Testing for multicollinearity: tolerance levels are around .80 and .90, which is considerably above the .20 limit indicating that multicollinearity was not present in this model.

Table 3 Correlation matrix

	M (sd)	N	A	B	C
A. Constraints up to 2.99	1.95 (.51)	58	1		
B. Constraints as of 3.00	3.39 (.28)	31	--	1	
C. Adaptive strategies	3.83 (.52)	89	.37**	-.37*	1

*p < .05 (1-tailed)

**p < .01 (1-tailed)

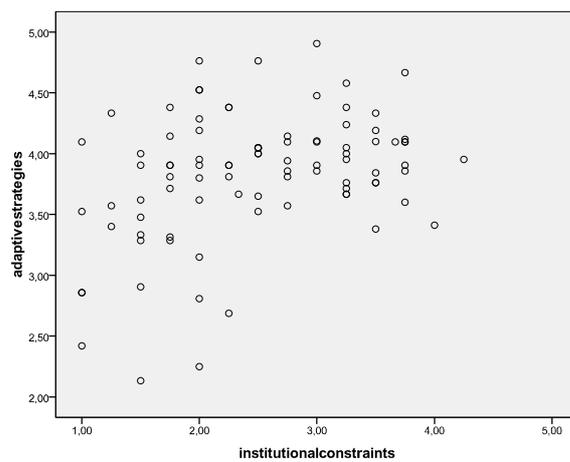


Figure 3. Scatter plot for hypothesis H₁₁.

Appendix A: List of items (in Dutch)

Self-efficacy to change

1. Ik ben er zeker van dat ik goed om kan gaan met veranderende omgevingswensen.
2. Ik ben in staat om de meeste organisatiedoelen die ik voor mezelf heb gesteld te behalen.
3. Over het algemeen gesteld, kan ik die uitkomsten behalen die ik belangrijk vind voor de organisatie.
4. Als ik geloof in een wens vanuit mijn omgeving, slaag ik er in om aan deze wens te voldoen.
5. Ik ben in staat om de uitdagingen die aan veranderende omgevingswensen vastzitten te overwinnen.
6. Ik ben er zeker van dat ik aan veranderende omgevingswensen effectief kan voldoen.
7. Vergeleken met andere mensen, kan ik niet goed omgaan met veranderende omgevingswensen.
8. Als mijn omgeving veel van mij vraagt, kan ik hier niet goed mee omgaan.

Motivation to change

1. Ik ben niet gemotiveerd om mij aan te passen aan een veranderende omgeving.
2. Ik ben het ermee eens dat het belangrijk is je aan te passen aan de wensen vanuit je omgeving.
3. Ik vind de wensen vanuit mijn omgeving belangrijk en daarom ben ik gemotiveerd om hier gehoor aan te geven.
4. Ik ben niet bereid gehoor te geven aan wensen vanuit mijn omgeving die een ingrijpende verandering van mij(n) gedrag veronderstellen.
5. Ik doe er alles aan om aan een wens uit mijn omgeving te voldoen.
6. Ik vind het belangrijk om te kijken naar je omgeving en je gedrag hierop aan te passen.

Experience with changing demands coming from the institutional environment

Geef in de onderstaande 4 stellingen aan hoe vaak u geconfronteerd wordt met (veranderende) omgevingswensen in uw dagelijkse werkpraktijk.

1. Ik heb de afgelopen 5 jaar te maken gehad met de noodzaak van financiële bezuinigingen.
2. Ik heb de afgelopen 5 jaar al eens te maken gehad met de noodzaak van fuseren met een andere kunsteducatieve organisatie.
3. Ik heb de afgelopen 5 jaar al eens te maken gehad met de noodzaak van het delen van huisvesting met andere organisaties.
4. Met veranderende wensen vanuit de omgeving heb ik de afgelopen 5 jaar te maken gehad (bijvoorbeeld wensen met betrekking tot aanbod, kwaliteit).

Institutional constraints

In uw ruimte om te handelen en keuzen te maken, in welke mate wordt u op dit moment beperkt door

1. het gemeentelijke cultuurbeleid?
2. het provinciale cultuurbeleid?
3. het beleid van het ministerie van OCW?
4. afspraken met andere instanties in uw externe omgeving?

Behavioural flexibility

- 1a. Wanneer de situatie er om vraagt, kan ik mij dominant gedragen.
- 1b. Het is moeilijk voor mij om me dominant te gedragen.
- 1c. Wanneer ik me dominant gedraag, benauwt me dat.
- 1d. Ik heb de neiging om situaties te vermijden, die dominant gedrag vereisen.
- 2a. Wanneer de situatie er om vraagt, kan ik mij ambitieus gedragen.
- 2b. Het is moeilijk voor mij om me ambitieus te gedragen.
- 2c. Wanneer ik me ambitieus gedraag, benauwt me dat.
- 2d. Ik heb de neiging om situaties te vermijden, die ambitieus gedrag vereisen.
- 3a. Wanneer de situatie er om vraagt, kan ik mij sociaal gedragen.
- 3b. Het is moeilijk voor mij om me sociaal te gedragen.
- 3c. Wanneer ik me sociaal gedraag, benauwt me dat.
- 3d. Ik heb de neiging om situaties te vermijden, die sociaal gedrag vereisen.
- 4a. Wanneer de situatie er om vraagt, kan ik mij volgzaam gedragen.
- 4b. Het is moeilijk voor mij om me volgzaam te gedragen.
- 4c. Wanneer ik me volgzaam gedraag, benauwt me dat.
- 4d. Ik heb de neiging om situaties te vermijden, die volgzaam gedrag vereisen.
- 5a. Wanneer de situatie er om vraagt, zoek ik graag de discussie op.
- 5b. Het is moeilijk voor mij om de discussie op te zoeken.
- 5c. Wanneer ik de discussie opzoek, benauwt me dat.
- 5d. Ik heb de neiging om situaties te vermijden, die discussierend gedrag vereisen.
- 6a. Wanneer de situatie er om vraagt, kan ik mij berekenend gedragen.
- 6b. Het is moeilijk voor mij om me berekenend te gedragen.
- 6c. Wanneer ik me berekenend gedraag, benauwt me dat.
- 6d. Ik heb de neiging om situaties te vermijden, die berekenend gedrag vereisen.

Adaptive behaviour

1. Wanneer de werkdruk hoog is, kan ik beheerst en kalm blijven.
2. Ik reageer overdreven op onverwacht nieuws of onverwachte situaties.
3. Ik probeer aan te sturen op constructieve oplossingen, ook al ben ik gefrustreerd.
4. Als ik te weinig tijd heb om iets af te maken op de manier die ik in gedachten had, raak ik geïrriteerd.
5. Ik vind het lastig om met onverwacht nieuws of situaties om te gaan.
6. Wanneer een situatie dusdanig complex is dat er geen gemakkelijke of voor de hand liggende antwoorden zijn, vind ik het moeilijk om een oplossing te vinden.
7. Indien er zich problemen voordoen, benader die ik op een voor mij bekende manier.
8. Als ik niet over de middelen beschik die ik nodig heb om een probleem op te lossen, bedenk ik een andere strategie en pas deze toe.
9. Bij onverwachte problemen, ga ik op zoek naar een innovatieve oplossing.
10. Wanneer zich onverwachte omstandigheden voordoen, kan ik mijn plannen daar gemakkelijk op aanpassen.
11. Ook al verloopt een situatie anders dan ik had verwacht, ik blijf mijn plannen doorzetten.
12. Als ik op voorhand het totale beeld niet compleet heb, kan ik niet effectief actie ondernemen.
13. Als zich een onverwachte situatie voordoet, pas ik daar mijn gedrag op aan.
14. Ik leer geregeld nieuwe manieren om dingen aan te pakken.
15. Ik los problemen gewoonlijk op dezelfde manier op.
16. Als ik een nieuwe manier leer om iets aan te pakken, pas ik het toe op mijn eigen werkpraktijk.

17. Wanneer ik merk dat er behoefte is aan een andere manier van aanpak, pas ik mijn eigen manier hierop aan.
18. Als ik mij in een groep of situatie bevind, waarin andere normen en waarden worden aangehangen dan bij mij bekend, onderneem ik actie om deze te leren kennen.
19. Ik integreer moeilijk in een groep/situatie die een andere cultuur kent.
20. Ik pas mijn gedrag gemakkelijk aan andermans waarden en normen aan.
21. Om positieve relaties te behouden met andere groepen of organisaties, pas ik mijn gedrag op hun culturen aan.

Adaptive strategies

1. Ik ben meer dan voorheen op zoek naar andere inkomstenbronnen dan afkomstig van de overheid.
2. Ik denk dat ik de aankomende jaren meer afspraken met financiers zal maken omtrent te leveren prestaties.
3. Om commitment te krijgen van financiers, sponsors, businesspartners leg ik persoonlijk verantwoording af aan de financiers.
4. Ik streef ernaar winst te maken op bepaalde onderdelen, die ik gebruik om financieel kwetsbare activiteiten te financieren.
5. Ik leg persoonlijk verantwoording af aan de gemeente.
6. Ik probeer (in toenemende mate) meerjaren afspraken te maken met de gemeente over structurele subsidies.
7. Ik wacht de gemeentelijke subsidie af en bemoei me er niet te veel mee.
8. Ik wacht het gemeentelijke cultuurbeleid af en bemoei me er niet te veel mee.
9. De omgeving van kunsteducatie organisaties (scholen, gemeente, kunstbeoefenaars, etc.) vraagt een uitbreiding van het aanbod.
10. Om meer cursisten te trekken, breidt mijn organisatie haar aanbod uit.
11. Ik verwacht dat mijn organisatie de aankomende jaren zal verhuizen naar een kleiner gebouw.
12. Ik heb de intentie om mijn organisatie in een pand gedeeld met andere organisaties onder te brengen.
13. Ik zoek samenwerking met andere kunsteducatieaanbieders.
14. Als onderdeel van strategische samenwerking, ontmoet ik op regelmatige basis andere directeuren van kunsteducatie aanbieders.
15. Als onderdeel van strategische samenwerking, ontmoet ik directeuren/managers van andere cultuurinstellingen als schouwburgen/musea/bibliotheken.
16. Ik hecht aan samenwerking in een brede school verband.
17. Vergeleken met vroeger, maakt mijn organisatie gebruik van de volgende inkomstenbronnen:
 - A. Gemeente
 - B. Provincie
 - C. Scholen
 - D. Amateurkunstverenigingen
 - E. Maatschappelijke organisaties
 - F. Particulieren sponsors/bedrijven
 - G. Particulieren in de zin van leerlingen/cursisten