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The Effects of similarities and dissimilarities in politico-administrative relations on Senior Executive Turnover in Local Governments

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Abstract

Turnover among executives warrants our research interest both out of functional and political reasons. Whereas the literature so far has primarily been interested in explanations at the organizational and individual level, we theorize the relationship between senior executives and their political counterparts using social identity theory, social comparison theory and social network theory and present competing hypotheses regarding the effects of demographic similarities and dissimilarities on turnover. Using register longitudinal data of Danish mayors and CAO's we find that greater age differences increase the likelihood of CAO turnover as does similar educational levels. We argue that our study illustrates the relevance of understanding turnover as a relational phenomenon based on factors beyond rational, political and functional explanations.

Introduction

Top executives have been a prominent research theme, both within the public and the private sector. Within a public sector context, top executives perform vital roles in terms of advising on and sometimes even shaping policies and political decision making, managing large and complex organisations positioned in equally complex environments, and spanning the worlds of the political principals and the executing organizations (Hambrick, 2007; Svava 2001; Hood and Lodge 2006). This means that administrative top executives are to develop close working relationships with their political principal(s) in the 'grey zone' between the political and administrative worlds (Svava 2001; 2006). Executives are further expected to demonstrate political responsiveness to the central and local governments of the day (Mulgan 2007; 2008), while at the same time bring experience and fachkompetenz (Hood and Lodge 2006; Dorothy et al 2018) into the government organizations. Even when these executives are recruited on their merits. To safeguard the ability to balance such demands, political principals are in various ways constrained when appointing and not least dismissing their administrative executives. However, this does and should not prevent the political principal from using the discretion granted and from time to time replace their administrative 'alter ego', that is the top administrative leader of government organization. Such replacements have increasingly been the case, at least in a Danish context (Christensen et al 2014).

Therefore, it is no surprise that recent research has been interested in better understanding the dynamics of executive succession and the determinants of executives' length of tenure (Boyne et al., 2010; Petrovsky et al., 2017). Inspired by research from the private sector and generic organizational theory, executive turnover has been suggested to bring disruptive and destabilizing forces which again lead to uncertainty within the organizational context; to bring in new and enhanced capacities providing the potential for change, innovation and better performance; or merely perform a more symbolic function in which the administrative part of top

executives in public organizations becomes public and ritual scape goats blamed and punished for policy failures, political crisis etc. (Boin et al 2001b; Byander and t'Hart 2016). These rather different theoretical accounts of turnover reflect that turnover is a challenging and complex or multifaceted phenomenon for at least four reasons. First, turnover may be motivated by different reasons, some of more a more rational and some of a more political nature. Second, turnover may have both negative and positive effects. Third, related to the two former aspects, getting empirical access to the motives of turnover is not a trivial endeavour, not least when performing large n-studies (Byander and t'Hart 2016). And fourth, due to the complex and multifaceted nature, the consequences of turnover may be both negative and positive, as well as be difficult to identify in a very general way as different motives for turnover may provide for different types of effects in different types of political and organizational contexts. In the end, the causes and effects of turnover will most likely be rather contingent on contextual and individual factors (Boyne et al 2001a).

This may be the reason why existing research on the effect of executive turnover for organizational performance produces rather mixed results (Boyne et al 2011a; 2011b).

However, within a public sector context the question of what causes turnover is important, not only due to the potential effects of turnover, but also due to the fact that the question merits attention per se. As is the case for most existing research on turnover within the merit appointed part of the administrative executive, explaining turnover is relevant in order to detect potential formal politicizing mechanisms creeping in through the back door. This is e.g. the case when political considerations become part of the motives for removing the upper echelons of the administration to increase its political responsiveness and ultimately control over the bureaucracy. In addition to address the myth of ineffective bureaucracies it may be equally important to reveal whether bad performance of public organizations, for which the administrative executives holds some of the responsibility, actually leads to executive succession, indicating that it is not only the political executives which are held responsible for underperformance.

Most existing research on administrative executive turnover has primarily been occupied with *organizational level* factor explanations.

First, previous research has shown turnover to be related to organizational performance. Within the context of UK local governments, Boyne et al (2010) found that especially central governments perception of the performance of local government organizations is related to turnover at the upper echelons on the administration of local governments. Lower perceptions of performance is accompanied by a higher rate of turnover especially for senior managers below the Chief Administrative Officer (the CAO) (Boyne et al, 2010). Later, Petrovsky et al (2017), found similar results for the UK central government organizations. That is agency heads leading organizations which perform poorly relative to other agencies will have a shorter length of tenure.

Second, financial strain has been identified as related to turnover among US city managers. McCabe et al. (2008) find that rather than the fiscal condition of the local government, the per capita income seems to affect those managers turnover.

Third, turning to the more political factors, McCabe et al. (2008) further identified what they refer to as 'substantial changes' in the composition of the city council will increase the likelihood of turnover among the city managers. Similarly, political conflict has been found to affect turnover (Kaatz et al, 1999; Whitaker and DeHoog, 1991). More recently, within the context of US central government, Doherty et al. (2018) identified political and ideological differences between US senior executives and (new) presidential leaders relates to turnover. While previous research has focused on explanations suggesting that the political principal for different reasons (performative, economic and/or political), pulls the trigger, their study introduces the idea that administration may also be pulling the trigger and leave the administration in the month before a new president takes office, if he or she '...anticipates conflict with the new president.' (Doherty et al 2018). While

referring to this as strategic exit, is resembles Peters idea of 'anticipatory politicization' (2013). Also in the context of Swedish central government organization there has recently been identified political explanations for turnover among agency heads, as Dahlström and Holmgren (2017) found partisan shifts in government increases the likelihood of turnover among Swedish agency heads. Finally, within the context of Danish central and local governments Christensen et al. (2014) have investigated the importance of changes in political leadership for turnover. For both levels of government the length of tenure has been decreasing, however this is more the case for the administrative leader of local compared to central governments (Christensen et al 2014:231).

However, to supplement these organizational factors, the literature has increasingly also focused on the fact that executives are humans to, who bring personal traits and experiences into their job. While research has only begun to explore such *individual level* factors, the study by Petrovsky et al (2017) suggest that the managerial background of administrative executives, that is being an insider (compared to an outsider) increases the length of tenure for agency heads in the UK central government.

Due to the fact that most administrative executives performs their role and manage their organizations in close 'tandem' with the political principal, we theorize and empirically investigate the relevance of explanations on a third level, *the relational level*. When accounting for the working relationship between the political and the administrative executives most researchers are confronted with narratives of the vital importance of a 'good chemistry' and personal relationships (Grøn and Salomonsen, 2018, Hood and Lodge, 2006). Chemistry may develop for a number of reasons, but drawing on social identity theory (Ashforth and Mael 1989); social comparison theory (Festinger 1954) as well as social network theory (Granovetter 1977; Burt 2009) we suggest that similarity or dissimilarity of gender, age and educational background in the politico-administrative relations may contribute to explaining executive turnover. Hence the main research question addressed is:

Can similarity or dissimilarity between the political and administrative executives explain turnover in a public sector context?

The research question is investigated through an empirical analysis of turnover of chief administrative officers (CAOs) within the context of Danish local governments. The data consist of panel register data ranging from 2007 until 2019.

The paper contributes to existing knowledge by deepening our understanding of how executive succession in public organizations is partly to be explained by relational aspects among the CAO and their political principals, in this case the principal with whom they have the closest working relationship, being the mayor. Further, by identifying the relevance of relational aspects when explaining turnover, the paper opens for discussions on the functionality and legitimacy of turnover in public organizations.

The paper proceeds as follows. In the subsequent section, the theoretical framework is presented which is rounded off by the formulation of a number of hypotheses. Next follows a section on research design and methods, in which the context of the Danish local government is presented. Hereafter the empirical findings are presented, followed by a discussion of the findings. The paper ends with a conclusion addressing the main contributions to research on executive turnover, the external validity of the empirical findings, limitations as well as practical implications.

Theorizing turnover and relational factors

Mayor-CAO (dis)similarity and CAO turnover

The mayor and CAO work in close relation in local governments and the success of one of these actors, at least to some degree, hinges on the success of the other (Svara, 2001). This means that this relation needs to be fueled by at least two overall ingredients: a) the ability to work well together, and b) the capabilities and skills

needed for solving the tasks and accomplishing goals. This is especially important for the mayor who, as a politician, need to win re-election. Executive succession is a likely consequence of an unproductive relation for one of two reasons. Either the mayor sees a need to replace the CAO; or the CAO sees better opportunities elsewhere and/or performs what was referred to as a strategic exit (Doherty et al 2018) due to expected or even experienced differences among her or him and the Mayor.

Whereas previous literature, as argued above has focused on a number of factors, which may affect executive turnover, such as organizational performance and political changes, we argue in this paper that CAO turnover may also be understood as a consequence of the relationship between the actors. While factors such as personal chemistry can be difficult to get at quantitatively, departing from the literature on trust we argue, that demographic similarities and dissimilarities may indeed affect the relationship between such actors (Zucker, 1986). The demographic composition of the upper echelons of organizations has for long been argued to be important for decision making in the executive layers, and, consequently, for the strategy and direction of organizations (Hambrick et al., 1996, Hambrick and Mason, 1984). Recently, a smaller part of this literature, mainly in the fields of corporate governance and general management, has focused on demographic similarity between actors in the executive layers or organizations (e.g. Zhang et al., 2011, Georgakakis et al., 2017, Ling et al., 2015). We argue that this line of research may well inspire the field of public administration to get a better understanding of what factors form the establishment of a strong and well functioning relationship between mayor and CAO. In the following sections, we pursue this line of argument based upon social identify, social comparison and social network theory.

Consequences of similarity

Positive consequences. Demographic similarity between the mayor and the CAO may increase political and administrative executives mutual attraction (Forbes and Milliken, 1999) as people in general tend to be drawn

towards people who are similar to themselves (Tsui and O'reilly III, 1989). This may make the close collaboration between mayor and CAO easier. Social identity theory argues that actors' sense of who they are depend on their group belonging (Ashforth and Mael, 1989), causing actors to evaluate others based on whether they belong to the same group or not. Group membership is typically assigned based on easily observable characteristics such as gender, age, or race (Tajfel, 2010). This theory predicts that collaboration, also at the top of the hierarchy, becomes easier when people share group membership, as this generates higher degrees of mutual trust and liking (Westphal and Zajac, 1995, Lau et al., 2008). Providing, among others for faster decision making and more adaptability (Hambrick et al., 1996)

Negative consequences. Demographic similarity may also have negative consequences for inter-personal relations for at least two reasons. First, social comparison theory posits that individuals evaluate themselves by comparing with others with whom they share distinct social characteristics (Festinger, 1954). The mayor and CAO are at the apex of local governments with responsibility for the political and administrative organization, respectively. They may engage in subconscious social comparisons with each other, especially if they are demographically similar, e.g. shares the same gender and/or age. Especially, the mayor may feel threatened by the CAO who often have more leadership experience and possess more task specific knowledge.

Second, social network theory claims that social similarity is typically connected with knowledge overlaps and lack of access to diverse networks (Granovetter, 1977, Burt, 2009). When individuals are similar they tend to see problems in the same way and use similar ways of addressing them. When new knowledge or information is needed, similar individuals might look for similar types of sources. This means that demographic similarity may be related to knowledge deficiencies and risks of 'group think' in decision making (Hu et al., 2015). While the mayor and CAO have organizational resources available to help gather information and knowledge, demographic similarity at the very top of organizations may negatively affect decision-making. This, in turn, can increase the likelihood of executive succession if the mayor sees a need for other competencies.

Consequences of dissimilarity

Positive consequences. Dissimilarity in the mayor-CAO dyad enables more diverse thinking to enter decision-making. When people are different, they come to work with different values and worldviews and different experiences. This might make for more productive collaboration (Pitts and Recascino Wise, 2010). Studies of group diversity in public organizations have pointed to performance benefits of diversity (e.g. Pitts, 2005, Opstrup and Villadsen, 2015). While this research does not specifically explore dyadic relations, it is likely that dissimilar mayor and CAOs will bring differential knowledge and networks which make them able to bring more perspectives into decision-making. Studies in representative bureaucracy have found representativeness related to higher perceptions of legitimacy (Ricucci et al., 2014). Similarly, a dissimilar mayor-CAO pair may be less likely to be perceived as closed circle or an ole-boys network, which may challenge the legitimacy and ultimately the managerial capacities of the politico-administrative executives as experienced by actors both within the organization as well as in the environment. These potential performance benefits may decrease the likelihood of executive succession.

Negative consequences. Collaboration has been found to be more difficult in heterogeneous work groups. First, it has been documented that dissimilarity is related to a higher likelihood of both task and emotional conflict (Pelled et al., 1999). When people have different values or opposing worldviews they are likely to define problems and evaluate solutions in different ways, which may lead to disagreement. While some amount of disagreement can be 'healthy' and make for more thorough discussion, too much disagreement is likely to be harmful. When conflicts arise, dissimilarity will also make them more difficult to resolve as participants lack a common ground to find a solution. Second, dissimilarity is likely to lead to prolonged decision making processes (Hambrick et al., 1996). Whether conflicts arise or not, decision-making is more bothersome when the individuals involved come with different backgrounds and experiences. Often decision making at the very

top of organizations take place under considerable time pressure, and in these circumstances dissimilarity may become a problem. Dissimilarity between a mayor and CAO, in this way may lead the pair down a path of unproductive collaboration that, over time, may increase executive turnover likelihood.

Hypotheses

The section above has discussed the potential consequences of similarity or dissimilarity between a mayor and CAO. In the following, we develop specific hypotheses focusing on three basic demographic factors: Gender, age, and education. Demographic attributes affect the behavior and decision-making of individuals (Pfeffer, 1983). These factors progressively shape the personality of individuals as they encompass experiences and learning made through life.

Gender

Gender has been an often studied variable in public administration research. Much of this research is focused on gender segregation (Stivers, 1995, Guy and Newman, 2004) and the gender wage gap (Stritch and Villadsen, 2018). Research on gender in management have found differences in external networking between male and female managers (Meier et al., 2006). A smaller strand of research focuses on gender diversity and the consequences of having a mix of men and women in the executive layers of public organizations. For instance, Opstrup and Villadsen (2015) find gender diversity in the top management team of local governments to be related to better financial performance when a supporting organizational structure is in place. Men and women take different routes to managerial positions, and by now a substantial amount of research has documented the glass ceiling in public sector organizations (e.g. Connell, 2006, Naff, 1994). A consequence of this men and women come with different experiences and skills to the work in the top of organizations. As such, we would expect that a mayor-CAO dyad of different gender would be likely to have complementing knowledge, skills, and networks that might help the organization perform better. On the other hand, gender differences may also

make collaboration more difficult. It could be expected that especially the situation where a male mayor works with a female CAO would potentially generate problems as the female CAO contrasts prevailing gendered management norms (Schein et al., 1996). Following the discussion above about advantages and disadvantages of similarity and the mixed effects of gender, we offer competing hypotheses about the role of gender similarity for CAO turnover.

H1a: When mayor and CAO are of same gender there is a higher likelihood of CAO turnover.

H1b When mayor and CAO are of different gender there is a higher likelihood of CAO turnover.

Age

Age importantly shape the worldview and values of individuals and has been argued to be a salient basis for group categorization (Stangor et al., 1992). This means that individuals of similar age have a higher extent of mutual attraction compared to when there is an age difference and are therefore likely to find it easier to collaborate. Age similarity means that the mayor and CAO will belong to the same generation and have values formed by experiencing the same national or global events such as macro-economic ups and downs; fluctuations of a more political nature e.g. different trust levels in politicians and the public administration or increasing or decreasing autonomy to the local vis-à-vis the central government to name of few of potential relevance in a local government context. In this way age shapes the social context of interaction (Ferris et al., 1991) and provides common reference points for discussions, even if two individuals have no shared work experience. On this background, age similarity may be related to mutual attraction and easier collaboration. On the other hand, the decision making of two individuals of similar age is likely to be more myopic and lack diversity of insights. Younger individuals will often have more recent education and be able to use newer insights in their work, whereas older individuals will possess more organizational and task specific knowledge. In the public sector, age dissimilarity may also involve the ability to relate to challenges and problems which

are pertinent for different age groups in society (Meier, 2018). A study from the private sector looking at age dissimilarity between the CEO and the chairman of the board (not too different from the management structure we are interested in) finds that firms enjoy performance benefits of dissimilarity (Goergen et al., 2015). They explain this finding by greater monitoring needs from the board when they see a dyad with higher potential for cognitive conflicts, which helps the top leaders of the firm being diligent in their decision-making. Although hard to measure, a similar dynamic might be present in city councils when the mayor and CAO are dissimilar.

It is unclear how age similarity in relation to the mayor affects CAO turnover likelihood. Again, we offer competing hypotheses

H2a: When mayor and CAO are of more similar age there is a higher likelihood of CAO turnover.

H2b: When mayor and CAO are of more different age there is a higher likelihood of CAO turnover.

Education

The level of education is an important component of human capital (Becker, 2009). An individual with longer education will tend to have a larger pool of theoretical knowledge and have more dispersed social network than individuals with shorter education. Like age and gender, education also shape the worldviews of individuals and contribute to group categorization. Individuals with shorter education have more practical knowledge and may have experience from more different workplaces. They may also have experienced positions lower in the hierarchy and have had to climb a longer ladder to get to the executive levels.

Educational heterogeneity have been linked to performance of groups (for a review see Jackson et al., 2003) and also to the prevalence and scope of strategic moves (Hambrick et al., 1996). However, like the other types

of diversity, also educational dissimilarity can be detrimental to group efficiency (Jehn et al., 1999) and make decision making slower (Hambrick et al., 1996).

Educational dissimilarity in the mayor-CAO dyad may be both positive and negatively related to CAO turnover. Because a dissimilar pair may achieve better performance they might prolong their working relations as neither part have incentives to quit. On the other hand, educational dissimilarity in this relation will most often mean that the formally stronger part, the mayor, has shorter education. This may create a power imbalance that can be difficult to navigate and which may enhance the negative effects of dissimilarity. Again, we propose competing hypotheses.

H3a: When mayor and CAO have similar length of education there is a higher likelihood of CAO turnover.

H3a: When mayor and CAO have different length of education there is a higher likelihood of CAO turnover.

Methods

Empirical setting

Our analysis focuses on demographic similarities between Danish mayors and CAO's (*kommunaldirektøerr*).

Danish local governments (*kommuner*) provide an excellent setting for testing how such similarities matter for CAO turnover. The 98 municipalities are highly comparable, semi-autonomous units subject to the same regulations and responsible for the same tasks (Greve 2006). Within their specific geographic area, they are responsible for a wide range of public services including child care, primary schooling, elder care, social services, culture and leisure, libraries, and the local infrastructure. In total, the municipalities make up for around half of the public expenditures in Denmark (Heeager and Olesen 2018: 48). Around 2/3 for their

funding comes from local taxes and fees and approximately 1/3 from central government grants (Blom-Hansen, Bækgaard and Serritzlew 2014).

The local governments are governed by a council elected every fourth year and executive power is shared among a compulsory financial committee, various standing committees responsible for the “immediate administration” of specific policy areas¹ and the mayor. Political decisions, for example the annual budget, is often enacted in consensus or by broad coalitions (Ibsen 2017: 98). Similarly, the allocation of offices for mayor, committee chairs, etc. rest on multiparty agreement typically comprising all or nearly all party groups in the council (Elklit, Hansen and Klemmensen 2017).

The mayor chairs the council and the financial committee and is the “daily leader of the municipal administration”. However, her formal authority is constrained by the council and committees that are responsible for the day-to-day administration within their portfolios (Mouritzen and Svava 2002: 60). In practice, the mayor is in most cases not just a central but *the* central political actor in the municipal (Berg and Kjær 2005: 9). The position of mayor is the only full-time position in the municipal council and after she is elected she cannot be removed from office during the fixed four-year election period. In most cases, the mayor represents one of the two biggest political parties, the Social Democrats or the Liberals (Kjær and Opstrup 2017).

There exists no formal politicization mechanisms in Danish local governments. The CAO is a career bureaucrat promoted from the ranks of civil service, based upon merit rather than political reasons. His role is not legally

¹ The individual municipal council is free to decide how many standing committees is formed (minimum one) and their specific area of responsibility. Most often, the political organization mirrors the major service areas (Kjær and Opstrup 2016).

defined in the Local Government Statute. However, he is usually regarded as the person in charge of the administrative part of the municipal organization (Bækgaard 2011: 1066). In practice, his influence is derived from the mayor and the division of labor between the two usually reflects the style of the mayor (and in some instances the style and influence of the CAO) (Ejersbo, Hansen and Mouritzen 1998: 98-99; see also Kjær 2015 on the mayors' different styles of interaction with top management). The mayor and CAO interact daily and typically several times a day. They are a tandem - or team - that work together based on a relationship of mutual dependence and, albeit to varying degrees trust (Hansen 1997: 227-228; Grøn and Salomonsen 2018). Mouritzen and Svava (2002) has described it as a "partnership at the apex of local government". However, based on her formal position it is ultimately the mayor who is in charge. (Hansen 1997: 213).

The CAO fill the role as the mayor's "sparring partner" and provide full political service; this includes support and advice related to the tasks as political executive as well as assistance in policymaking and political-tactical advice (see Mouritzen and Svava 2002, chapter 5 and 6). The CAOs themselves typically emphasize tasks related to a role as a "political bureaucrat" (i.e. policy development and political advice) rather those of a "traditional administrator" (Ibsen and Opstrup 2016: 411). Hence, while formal politicization mechanisms are absent in the Danish local governments the Danish local administration, at least at the upper echelons, performs a comparatively extensive functional politicized advisory role.

However, this have not lead them to be over responsive to their political principals to the point where incoming principals find it difficult to trust their advice, as previous studies have not found that party political changes in the political leadership is systematically associated with CAO turnover. When analyzing CAO turnover in Danish municipalities between 1970 and 2005, Christensen, Klemmensen and Opstrup (2014) do not find that the election of a new mayor from a different party increase the probability of changes on the CAO

position. However, if a new mayor represents another party and her election is accompanied by a change in the absolute majority in the city council there is an increased likelihood that a new CAO also takes office. Moreover, the election of a new mayor from the same party as the predecessor also increase the chance for a change of CAO. The interpretation of the latter is that: "it may be important for a new mayor to free himself from the modus operandi that prevailed under his predecessor, in spite of their belonging to the same party. This lends further support to the view that interpersonal trust and compatibility are important to the collaboration between political executives and their closest associates within the civil service" (Christensen, Klemmensen and Opstrup 2014: 234). Rather than party political factors, replacements at the top of the administrative hierarchy are likely to be due to poor personal chemistry between the mayor and CAO (Christensen, Klemmensen and Opstrup 2014).

Both mayors and CAOs, however, report that the level of conflict are very low or non-existing (see Berg and Kjær 2005: 92 (mayors) and Ejersbo, Hansen and Mouritzen 1998: 107 (CAOs)). But as Berg and Kjær (2005: 96) notes, maybe reported level of conflict are low because conflicts lead to the CAO being replaced. Not seldom, there are reports in the media of CAOs being fired because they for one reason or another has lost the trust of the mayor and often also the entire council (Berg and Kjær, 2005). Back in the 1995, 25 percent of CAOs reported that their predecessor's departure was due to conflicts with the political level (Hansen 1997: 160; Ejersbo, Hansen, Mouritzen 1998: 100). Since then the turnover rate among Danish local government CAOs have gone considerably up (Grøn et. al. 2018).

Data

To study how demographic similarities matter for turnover among CAO's, we analyze bibliographical information on mayors and local government CAO in the 98 Danish municipalities for the period 2007 to 2019². The unit of analysis is 1,274 municipal-year observations (98 entities x 13 years).

The data is compiled from different sources. Yearly registration of mayors and CAOs in each of the 98 municipalities for each year of the analysis is based on the official local government handbook (*Mostrup Kommunal Håndbog*) which was issued annually up to and including 2013. From 2014 and onwards, the registration is based on information from the municipalities' websites. It was registered who held the position as mayor and CAO as of January in the given year³. These listings are supplemented by information on their gender, age (year of birth), and level of education (university degree or not) coded based on the publicly available CV information at Altinget.dk⁴ and, when this information is not available, profiles in newspaper articles. Finally, a number of control variables are integrated from the official statistics published by the Ministry for Economic Affairs and the Interior, the so-called Municipal Key Indicators (*De Kommunale Nøgletal*).

Measurement

Dependent variable: A simple measure of CAO turnover is created based on the listing of CAO names in each of the 98 municipalities. If the name of the chief administrative officer changed from one year to the next, it is coded as a change of CAO during the preceding year, otherwise no change is coded. This is a dummy variable

² The present organization of Danish local government into 98 municipalities became effective in 2007 (on the 2007 Structural Reform (*Strukturreformen*) see Vrangbæk 2010).

³ This ensures the best compatibility with the information from the local government handbook where the listing of names is based on municipalities' reporting at the end of the previous year.

⁴ Altinget is an independent Danish online media with focus on national and local politics:
<https://www.alinget.dk/artikel/alingetdks-formaal-maalgruppe>

which can take the values 1 (change of CAO in the given year) or 0 (no change of CAO in the given year). For example, Anders Agger is listed as the CAO in the municipality of Ballerup between 2007 and 2014 and Eik Møller is registered as CAO from 2015 and onward. In this case, a change of CAO is coded for the year 2014.

Independent variables: Two sets of independent variables are used in the analysis: 1) changes in the position of mayor and 2) measures of demographic similarities between the mayor and CAO.

Parallel to the coding of CAO turnover, we create a measure of change of mayor based on the yearly registrations for each municipality. Because a change of mayor does not necessarily lead to a change of CAO immediately, we code the year in which the change of mayor occurs as well as the two following years. In the analysis, we also specify models also distinguish between two types of changes 1) when the change involves a new mayor from the same party as the predecessor and 2) when the change involves a new mayor but from a different party than the predecessor.

We also create three measures for demographic similarities with regard to gender, age and education. Based on their names we coded the gender of both the mayor and the CAO. From this, we then created a dummy variable where a gender difference between the mayor and the CAO in a given municipality in a given year is assigned the value 1 and no gender differences is coded as 0. Very similarly, we also create a measure of differences in the level of education (university degree or no university degree). Again, this is a dummy variable where the value 1 indicates a difference in the level of education between the mayor and the CAO in a given municipality in a given year and the value 0 indicates no difference. Finally, we create a measure of the absolute age difference between the mayor and the CAO in a given year. On this variable, higher values express a greater age differences regardless of whether the mayor or the CEO is the oldest.

In the analysis, we specify models that include the possible interaction effects between the two sets of independent variables.

Control variables: To better insulate the effect of demographic similarities on CAO turnover, we include a number of control variables in the analysis. We include controls of both organizational and individual level factors, reflecting the literature so far. These include central structural and political characteristics for the municipalities (population size, [we have not yet included all the relevant controls]) and characteristics of the individual CAO (age, gender, length of tenure).

Table 1 reports the descriptive statistics of the included variables

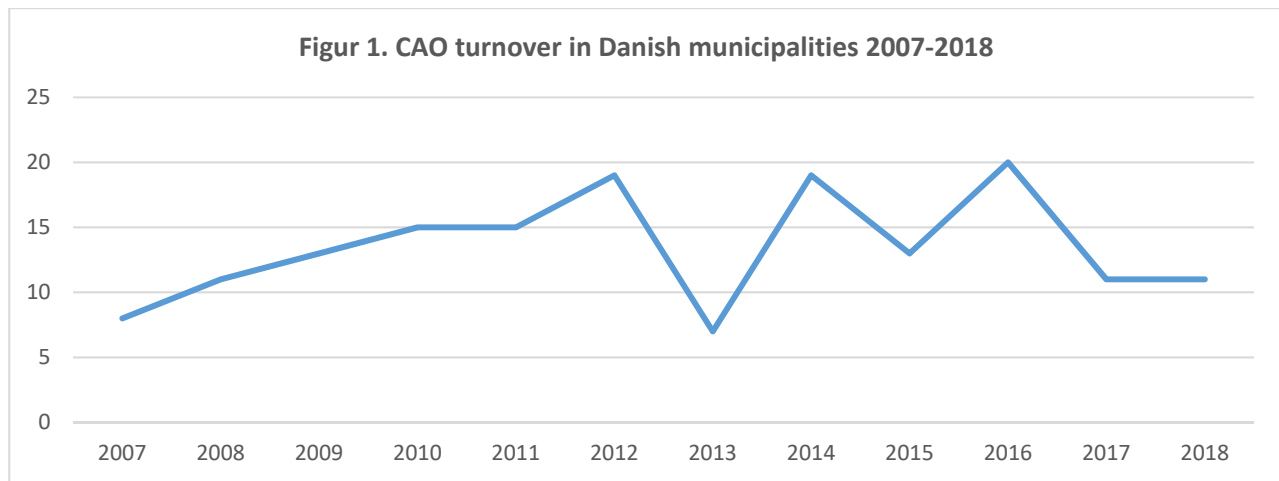
Table 1. Descriptive statistics				
	Mean	SD	Min	Max
CAO turnover	0.127	0.333	0	1
Change of mayor (three-year window)	0.322	0.467	0	1
Gender difference	0.195	0.396	0	1
Age difference (absolute value)	1.119	10.010	-28	25
Educational difference	0.640	0.480	0	1
Female CAO	0.097	0.297	0	1
Age CAO	54.203	5.965	39	71
Length of tenure CAO	4.064	2.939	1	13
Population size	57332.71	66148.69	1793	623404
Service level	42341.94	4974.738	33174	83142
Expenditure needs	55786.35	6273.689	38153	80637

N = 1,274

Estimation [NOT WRITTEN]

Results

The descriptive statistics presented in table 1 show that on average the yearly turnover rate among local government CAOs in Danish municipalities are close to 13 percent. This is equivalent to around 12-13 of the 98 municipalities changes CAO each year. As illustrated by figure 1, the actual number of CAO replacements, however, varies substantially from year to year from a high of 20 in 2016 and a low of seven in 2013.



In table 2, the analysis of the impact of demographic similarities on CAO turnover is presented. Hypothesis 1a and 1b proposed that gender differences between the mayor and CAO will matter either positively or negatively for the likelihood of the CAO being replaced. However, neither hypothesis finds support. The

estimated model indicates no significant relationship between gender differences and CAO turnover. However, the analysis shows that female CAOs are, independently of the gender of the mayor, at greater risk of being replaced than their male counterparts.

Table 2. Logistics regression predicting CAO turnover	
	Model 1
Change of mayor (three-year window)	0.267 (0.206)
Gender difference	-0.221 (0.211)
Age difference (absolute value)	-0.028* (0.015)
Educational difference	-0.455* (0.179)
Female CAO	0.781* (0.328)
Age CAO	0.083*** (0.013)
Length of tenure CAO	-0.277*** (0.046)
Population size	0.000 (0.000)
Service level	0.000 (0.000)

Expenditure needs	-0.000 (0.000)
Constant	-5.014*** (1.288)
Number of groups	97
Number of observations	1,135
Wald chi-square	129.61***

Note: Robust standard errors in parentheses. Dummy variables for year included.⁵

*** p < .001, ** p < 0.01, *p < 0.5; two-sided tests.

Hypothesis 2a and 2b focused on the impact of age differences. In the estimated model there is a marginally significant positive association between age difference and turnover ($p < 0.1$). This lends some support to hypothesis 2b that proposed that when mayor and CAO are of more different age there is a higher likelihood of CAO turnover whereas hypothesis 2a is rejected. Not surprisingly, the age of the CAO is in itself positively associated with a increased risk of turnover.

Finally, hypothesis 3a and 3b proposed that differences in the level of education between the mayor and the CAO will matter for CEO. Here, the estimated model lends support for hypothesis 3a (when mayor and CAO have similar length of education there is a higher likelihood of CAO turnover). There is a significant negative association between differences in the level of education and turnover.

⁵ Due to missing values, we lack one municipality in our analysis.

Another important result from the analysis is that there is no significant relationship between a change of mayor and change in the position of CAO (even when we operate with a two-year window). Similarly, we do not find significant associations if we specify models, regardless of whether a new mayor comes from the same party as the predecessor and or from a different party (not reported). In accordance with Christensen, Klemmensen and Opstrup (2016), we thus do not find indications of a formal politicization of the CAO position.

Furthermore, we do not in any cases find significant interaction effect between a change in mayor and the measures of differences in gender, age or educational level between the mayor and the CAO (not reported).

Discussion

In this paper, we aim to explore *if similarity or dissimilarity between the political and administrative executives explain turnover in a public sector context*. Drawing on social identity theory, social comparison theory and social network theory we presented a number of competing hypotheses regarding the demographic similarities and differences, focusing on gender, age and educational differences. We argue, that this focus on relational factors supplements the interest in organizational and individual level factors explaining turnover as we identify in the existing literature. We find that greater age differences increase the likelihood of CAO turnover as does similar educational levels

In this way, we contribute to the existing literature by showing how relational factors such as demographic similarities and dissimilarities affect turnover. By directing our focus towards such factors, we support the increasing interest in factors and explanations beyond strictly rational, political or functional factors.

Understanding turnover among executives as more than a question of their performance or political motives and maybe also a result of unconscious cognitive processes and biases may help increase our understanding of

the phenomenon. This holds relevance not just within the academic literature searching for better tools to understand our empirical fields but also for the executives and the politicians working with them as well. Just as 'sensitivity training' is used to make e.g. police officers aware of implicit biases it may be relevant for both executives and politicians to consider to what extent they carry such implicit biases. While turnover is not an ill in itself, it has both functional and political implications, which warrants our interest in the topic. Executive turnover increases turbulence in already turbulent world and can potentially jeopardise the neutrality and independence of the administration, in contexts where this is a key parameter. However, as we argue at the outset turnover may also lead to increased performance and be a legitimate consequence of the public nature of public organizations. Basically, both as researchers and practitioners, we need to know what leads to these shifts to be able to understand if they are functional and legitimate. This research takes us a small step closer to understand and hence evaluate these mechanisms.

Our study comes with a few caveats. Whereas our register data is generally of a high quality and supports our research objectives, we still need to remember that we study a subsection of senior executives in the public sector in a particular national context. As we argue in our methodology section, Danish CAO are not politically appointed. We cannot assume that the dynamics we describe work similarly among politically appointed officials just as we may find differences between a local government context and a national government context. Similarly, when we study a context which can largely be described as complementary (Svarra and Mouritzen, 2002) we may expect this to affect our findings compared to systems where administrative and political functions are less entangled, as relational factors may be especially important when the politico and administrative actors span their respective worlds of politics and administration.

These caveats calls for future research expanding the scope of our data to other contexts, both in terms of level of government and the balance between the permanent and the politically elected bureaucracy. It also illustrates the importance of investigating variables beyond performance and political motives to understand

our empirical field and may even call for more relational data to support a “social turn” in the research on senior executives.

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