

Elites in Denmark

Identifying the Elite



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Ph.D. Dissertation

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Dansk resumé:

Hvem er medlemmerne af den mest magtfulde gruppe i det danske samfund? Det er det centrale spørgsmål i denne afhandling. Med netværksanalyser finder og undersøger vi kernen af det danske magtnetværk – magteliten – og erhvervselitens inderkreds. Med korrespondanceanalyse undersøges forskellene internt i erhvervslivets top.

Betydningen af hvordan eliten defineres eller identificeres diskuteres op imod den dominerende tilgang til nationale elite studier. I positionsmetoden defineres elitens størrelse og sammensætning på forhånd. Vi fremlægger en ny data sensitiv metodik, der identificerer en sammenhængende elite ved hjælp af social netværks analyse. Det giver muligheden for at analysere på sammensætningen af eliten og afgøre i C.W Mills ånd, hvad de afgørende institutionelle ordner i Danmark er.

Når man skal identificere grupper ved hjælp af social netværks analyse eller analysere forskellene i en korrespondanceanalyse er det afgørende hvordan man teoretisk og metodisk forstår sociale afstande. I en korrespondanceanalyse har alle individer en afstand til hinanden, men det forholder sig væsentligt anderledes i social netværksanalyse. Her er de sociale afstande grundlæggende binære, enten er der to personer forbundet direkte eller igennem andre eller så er afstanden imellem dem uendelig. Det har stor betydning for hvor mange individer man kan inkludere i analysen uden at resultaterne bliver markant anderledes. Derfor er social netværks analyse bedre til at identificere en elite, fordi individer der er isolerede eller perifere ikke nødvendigvis har indflydelse på gruppeinddelingerne. Uden denne egenskab kunne man ikke benytte så relativt meget data som vi gør i vores datasæt, Det Danske Elitenetværk.

De 100 vigtigste danske topdirektører kortlægges i den første og anden artikel. I den første artikel vises hvilke karriereveje, der leder til toppen af erhvervslivet sammenlignet med Tyskland, Frankrig og Storbritannien. Med klyngeanalyse findes 4 typiske karriereveje for danske direktører, der dog alle går gennem mange år i erhvervslivet: firmaets mand, arvingen, eksperten og sælgeren, hvor den sidste er særegen for dansk erhvervsliv. Danske topdirektører stammer ligesom deres udenlandske kolleger i høj grad fra den øvre middelklasse eller overklassen, ofte fra direktørhjem. Men topdirektørerne er meget forskellige, når det kommer til uddannelsestyper og længde på tværs af lande. Det tyder på, at det er mere afgørende at passe ind i den nationale erhvervskultur end at have kvalifikationer og erfaringer, der passer til ledelse på tværs af lande.

Topdirektørernes nuværende status og netværk kortlægges i den anden artikel. Det viser sig at høj status i form af omtale, royale anerkendelser som ordner og invitationer til bal og ledelsespriser hænger endog

meget tæt sammen med, om direktøren inviteres ind i de netværk, der forbinder dem med andre dele af magteliten. Selv blandt de 100 vigtigste direktører er der store forskelle i, hvor stor prestige, man har og hvor godt man er integreret med de øvrige magtmennesker.

Sammenhængen mellem netværk og status gjorde det oplagt at se endnu nærmere på det danske magtnetværk. Vi indsamlede en stor database bestående af 5.233 netværk med 62.841 poster besat af 37.750 mennesker. Databasen indeholder virksomhedsbestyrelser, bestyrelser og underudvalg i organisationer med høringsret, ledende organer i statslige institutioner, kommissioner, udvalg, råd og nævn, fondsbestyrelser, andre netværk og begivenheder som kongelige baller. Indsamlingen er udførligt beskrevet i den femte artikel.

Bestyrelsesposterne i de 1.037 største danske virksomheder bruges til – med udgangspunkt i Michaels Useems teori - at finde en inderkreds i den danske erhvervselite i artikel 3. Her findes 171 mennesker, der ikke bare sidder på de centrale poster i dansk erhvervsliv, men også langt hyppigere end de øvrige bestyrelsesmedlemmer har poster i andre prestigefyldte eller magtfulde magtnetværk så som erhvervsorganisationer, statslige råd og nævn, universitets- og kulturbestyrelser, eksklusive netværk som VL-grupper, fonde og royale begivenheder. Inderkredsen ligner desuden direktørerne i kraft at have eksklusiv social baggrund, samme smalle uddannelsesbaggrund og dele livsstil med hinanden. Det giver denne gruppe alle muligheder for at være den politisk aktive del af den økonomiske elite eller kapitalistklassen om man vil.

Hvor artikel 3 om inderkredsen fokuserer på individerne ser artikel 4 på de 1.0037 største danske virksomheder og hvilke egenskaber der har betydning for om en virksomhedsbestyrelse har forbindelser på tværs af sektorer. Der er meget stærke korrelationer mellem omsætning og hvor mange forbindelser virksomheden har indenfor syv forskellige sektorer. Men det er primært de 250 største virksomheder, der forbinder med andre sektorer. Det vises også at udover økonomisk størrelse så har det også en positiv betydning hvor omtalt en virksomhed er, om det er en finansiel virksomhed, om den er den største virksomhed indenfor sit felt og om den er en del af andelsbevægelsen. Modsat er danske afdelinger af Global 500 virksomheder væsentligt dårligere integreret i den danske elite.

For at kunne identificere magteliten i Danmark udvikles der i artikel 6, en ny metode, der anvender k-kerne dekomposition. Ved at tage alle potentielt magtfulde netværk med og herefter udvikle teknikker til at vægte de meget forskellige typer af netværk – lige fra virksomhedsbestyrelsens alvorlige atmosfære til pragten ved det kongelige bal – bliver kernen af netværket ikke bestemt af forskerens fornemmelse for magt, men af hvem der faktisk interagerer mest i magtnetværket. På den måde findes en magtelite på 423 personer.

Disse 423 mennesker og deres netværk kortlægges så i den sidste artikel. Først vises, hvordan det for alle sektornetværk gælder at det at have centrale poster i et sektornetværk, fx statslige institutioner, råd og nævn, betyder at man også oftere har centrale poster indenfor et andet sektornetværk, fx fagforeninger. Desuden bliver det klart, at de centrale poster i netværket akkumuleres blandt meget få personer. Herefter ser vi nærmere på magtelitens sammensætning. Over halvdelen er enten fra det private erhvervsliv eller fra erhvervsorganisationer. Men både fagforeningsledere, topembedsmænd, politikere – især med ledelsesposter, altså ministre og borgmestre – og videnskabsfolk, særligt universitetsrektorer og økonomer er med i kernen af magtnetværket. Kerneaktører i den danske model er alle tilstede. Retsvæsen, kulturadministratorer og mediechefer udgør meget små minoriteter, mens de gejstlige, kunstnere samt journalister og andre mediepersonligheder er helt udenfor. Men ikke kun sektortilknytning betyder noget. Ved at se på enkeltpersoner forklares det, at for at blive en del af kernen, så må man spille på dennes præmisser, hvilket grundlæggende betyder at acceptere sine med- og modspillers ret til at være der. Endelig ses der nærmere på magtelitens kendetegn. Næsten alle de 423 er ledere, tæt på halvdelen kommer fra kun 8 universitetsuddannelser og det store flertal klumper sig sammen i helt bestemte områder. Magteliten foretrækker særligt at bo nord for København tæt på skov eller vand. Magtelitens lukkethed vises ved, at færre end en ud af fem – 19 % - er kvinder og at den sociale rekruttering er meget skæv. 94 % af de fra magteliten, vi kender den sociale baggrund på, kommer fra samfundets mest privilegerede 20 %. Og mere end dobbelt så mange har forældre nævnt i Blå bog, som der kommer fra de resterende 80 % af den sociale rangstige. Med andre ord bindes kernen af magtnetværket ikke blot sammen af deres tætte netværk, men af at dele livsstil og erfaringer. De udgør, trods de interne modsætninger, en sammentømret gruppe, der koncentrerer magten indenfor kongeriget på få hænder.

Studierne af de danske topdirektører, inderkredsen i dansk erhvervsliv samt de største virksomheder viser altså samstemmende at en meget lille gruppe koncentrerer og akkumulerer en voldsom mængde ressourcer helt i toppen af det danske samfund. Denne gruppe er på kryds og tværs bundet tæt sammen i et vidtforgrenet netværk. Kernen i dette netværks sammenhængskraft øges af den store lighed – både hvad angår livsstil og social baggrund – der findes både blandt topdirektører og i hele magteliten.

English Summary

Who are the members of the most powerful group in the Danish society? To answer this question, we explored the elite through two different methodological approaches. Using correspondence analysis, we charted the oppositions structuring two exclusive groups, the 100 most important Danish CEOs and the 1,527 elite individuals identified in the Danish Power and Democracy Study in 1999. Through social network analysis, we identified and explored the integration of a core of the power network in Denmark – the power elite - and the inner circle of the corporate elite.

The importance of how the elite is defined or identified is discussed in relation with the most widely used method for the study of national elites. With the positional method the size and composition is defined as the data is constructed. We propose a new data sensitive method that identifies a cohesive elite with social network analysis. This lets us analyse the composition and like C.W. Mills identify the key institutional orders in Denmark.

How you theoretically and methodologically define and measure social distance is crucial when you try to analyze or identify groups with social network analysis or multiple correspondence analysis. In a correspondence analysis all individuals are given a distance to each other. In social network analysis it is very different. Here the social distances are binary, two people are either connected directly or through others or they are unconnected and then the distance between them is infinite. This is important for how many individuals you can include in your analysis without changing the results dramatically. This is one of the reasons social network analysis is very good at identifying an elite, because isolated do not influence the detection of groups. Without this property of social network analysis we would not be able to use the relatively large and inclusive dataset, The Danish Elite Network, to identify the elite.

The first and second articles map the 100 most important Danish CEOs. In Article I, we show which career trajectories lead to the top managerial positions, compared with Germany, France and the UK. Four typical career paths are identified using cluster analysis: the organisational personnel, the inheritors, the experts and the salespeople. Of these, the last is typical of Danish business; however, all of these pass through many years in the business world. Like their foreign counterparts, Danish CEOs hail mostly from the upper–middle class or the upper class, often from homes in which the father himself was an executive. However, when it comes to types and level of education across countries, the top managers are very different. This suggest that it is more important to fit into the national business culture than to have qualifications and experience useful in management across countries.

The status and prestige of the top CEOs are charted in Article II. High status levels are tied very closely to whether or not the manager is invited into the network, tying them to other parts of the power elite. Such status takes the form of media coverage, royal recognition in the form of decorations and invitations to royal balls, and leadership prizes. Even among the top 100 CEOs, there are substantial differences in the levels of prestige and the degree of connections to other powerful individuals.

The association between network ties and status highlighted the need to further explore the Danish power network. A large database was constructed from 5,322 affiliations, with 62,841 positions held by 37,750 individuals. The database contains corporate boards, boards and subcommittees in organisations officially recognised by the state, boards of state institutions and commissions, foundations boards, other networks, and events such as royal balls. The database is described in depth in Article V.

Article III describes how, from the positions on the boards of the 1,037 largest Danish corporations, we identified an inner circle of the Danish corporate elite corresponding to Michael Useem's inner-circle concept. We identified 171 individuals sitting not only in the central positions in the Danish corporate world, but also frequently in other prestigious or powerful networks, such as business organisations; state committees; boards of education, research or culture; exclusive networks such as the groups under the Danish Management Society (VL); foundations; and royal events. The inner circle are similar to the top CEOs in having prestigious social backgrounds, the same narrow educational profile, and sharing lifestyles. This leaves this group with every possibility of being the politically active part of the capitalist class.

In order to identify the power elite in Denmark we develop, in article 6, a new method that uses k-core decomposition. The analytical strategy makes it possible to approach the size and composition of the elite empirically. By including all potentially powerful networks and developing weights to handle the heterogeneity of these diverse networks – ranging from the serious atmosphere of the corporate board meeting to the splendour of the royal ball – the core of the network is decided not by the researchers' preconceptions and assumptions about the nature of power, but by who actually interacts most frequently in the power network. In this way a power elite of 423 individuals are found in the core of the power network.

These 423 individuals and their networks are charted in the Article VII. First, we show how, for all of the sectoral networks, central positions in one of the sectoral networks (e.g. central state institutions and committees) leads to central positions in other sectoral networks (e.g. unions). Furthermore, central positions are accumulated by a very small group. When looking at the composition of the power elite,

more than half come from either business or business associations. However, also part of the core of the power network are union leaders, senior civil servants, politicians – especially those with leadership positions such as ministers or mayors – and scientists, especially university principals and economists. The key actors in the corporatist Danish state are all present. The juridical system, administrators of culture, and media directors are tiny minorities, whereas the clergy, artists and journalists or other celebrities are completely excluded. But not only is affiliation to a certain sector important. By looking at particular individuals it is shown how, to become part of the core of the elite network, one must play the game of the power elite, essentially by accepting the legitimacy of claims to power of all the other members of the power elite. Finally, we explore the social characteristics of the power elite. Almost all of the 423 hold a position of authority at the top of an organisation. Close to half come from just eight university programs. The vast majority cluster in the gilded ghettos, in particular near the sea and parks in Northern Copenhagen. The social closure of the power elite is evident in the gender profile (less than one in five [19%] are women) and the highly selective social background. More than 90 % of those in the power elite for whom we have social background information come from the most privileged 20% of society. Power elite members who have parents mentioned in *Kraks Blå Bog* (the Danish equivalent of *Who's Who*) outnumber the remaining 80% on the social ladder more than two to one. Thus the core of the power network is tied not only by their interwoven network, but also by shared lifestyles and experiences. In spite of internal differences, they compose a cohesive group that concentrates power in Denmark in the hands of very few indeed.

The studies of the Danish top CEOs and the inner circle in Danish business, together with the largest corporations and the power elite in Denmark, presented in this dissertation all show that a small group concentrates and accumulates a large volume of resources at the very top of Danish society. This group is densely interlocked in a widespread network. The cohesion of the core of this network is strengthened by the similarities in lifestyle and social background of the top CEOs and in the power elite as a whole.

Introduction: Identifying the elite

Few things are as important to a society as how and by whom it is governed. Countless are the struggles over dominance. Few ambitions of man have made a trail of more sorrow and suffering than the ambitions of elite families. Most wars have not been the result of spontaneous sparks of hatred among common folk, but the results of unmet ambitions of elite families insulted by power claims by other elite families. If the status struggles become violent, struggles between elite factions can split a society into pieces. As Pareto(1991) notes, 'history is the graveyard of aristocracies'. No country other than Pareto's Italy could better exemplify that nations rise and fall with their elites.

Nevertheless, according to Roberto Michels (1949), not all elites go down with a struggle. Incumbent elites will often incorporate challengers from competing elites into a united faction, creating an amalgam of the old and the new. The character of elites is therefore not a given dictated by economic factors, religious practices or ethnicity; it is instead the sum of former struggles. The elite are a mirror of the particular history that formed that particular nation-state. There is considerable national and historic variation in the composition and character of national elites. In China, the communist party is the single, all-dominant organisation, from which even the new capitalist class is recruited. In Egypt under Mubarak, a large part of society was controlled by the Egyptian army either directly or by former military leaders who were appointed to leading positions (Nassif 2013). Hundreds of years after the social upheavals that gave birth to parliamentary democracies in Europe, several European countries are still, formally, monarchies. In these countries, it is common that the royal families play central roles in the formation of elite networks, act as contacts to foreign dignitaries and distribute symbolic goods in the form of decorations. Many of the families are some of the largest landowners in their respective countries. Even in the most modern societies in the world we still find nobility, and with it, inheritance of social status and titles.

If competing elites can reach a peaceful agreement in an elite settlement (Burton and Higley 1987), all parties may keep some of their power and privileges while giving room and influence to new members of the elite. In modern societies, there may be a tendency towards peaceful elite negotiations and the establishment consensually united elites. This can be by general taming of economic elites, a process first described by Gaetano Mosca (1939) and revisited by Jeffrey Winters (2011), in which oligarchs settle disputes over land and wealth by way of law and sack their hired guns, thus accept the role of the sovereign state as the state with the monopoly on legitimate force. However, even if the wealthy have

accepted demilitarisation, according to Winters, they are still the dominant faction within the elite. In the long run, wealth is a more exchangeable and reliable form of power than, for instance, control over the mobilised masses. Through lobbyists, charity and structural necessity the wealthy elite are able to influence other elites and defend a structure that benefits the class of the wealthy.

But the idea of an elite settlement, an agreement that is written into law and ending periods of conflict, may underestimate the importance of the day to day struggles over positions and dominance within an elite. These conflicts were analysed by Pierre Bourdieu (1996) and conceptualised in the notion of the field, specifically in the field of power. In the field of power, agents from diverse fields struggle over the exchange rate of their forms of capital. The struggle over how much influence and privilege their specific resources are worth vis-a-vis the other elite members slowly changes the state of the field and thereby, how and by whom society is dominated.

Bourdieu was wary of the 'naive' question of who rules (Bourdieu and Wacquant 1996), as it is the study of populations instead of positions within a structure. By studying the structure and positions within a field, we can get to the dominant principle of domination within society and the ways in which it is legitimised. But in the same breath, he admits that it is only possible to investigate structure and positions in a field by looking at the characteristics of the individuals within the structure. This places even more importance on the definition and selection of the elite population, as it no longer answers merely who rules, but also how they legitimise their dominance. Pierre Bourdieu (1996) relied partially on what is called the positional approach in his studies of elites. However, he insisted that fields must be constructed in a reflexive process (Bourdieu and Wacquant 1992) and that populations must be defined in a back and forth hermeneutic process (Bourdieu 2005:99). In this way, his methodological approach was quite similar to that of C. W. Mills(1956).

Mills (1956) defined the power elite, a concept similar to Bourdieu's field of power (Denord, Lagneau-Ymonet, and Thine 2011), as the overlapping circles of the key institutional orders. The central difference between the two concepts is the emphasis on actual interaction. The power elite meet, regularly, and through these meetings, they struggle over the right to dominance. Mills was criticised for relying on interaction in his definition of the power elite, while in the eyes of the critics not lifting the empirical burden of showing their unity, for not defining the elite as a group and for not showing how it influenced decisions (Dahl 1958). All elite studies that rely on the positional method are vulnerable to this critique. Why should we assume that the people the researcher has lumped together in his or her dataset have anything to do with each other?

Mills did not work within the framework of social network analysis, even if he drew on concepts such as the social circle, which is within the vocabulary of social network analysis. Even if he had, the social network analysis of the 1950s was neither theoretically nor methodologically sophisticated enough to solve the boundary specification problem (Emirbayer 1997) at the heart of the study of the power elite. Now, several decades later, there has been substantial progress in both group detection and centrality measures in social network analysis. By identifying the overlapping social circles proposed by Mills, it is now possible to use social network analysis to find the power elite. Moreover, this distinct group would be bound together by interaction, putting to rest much of the criticism raised against Mills.

By identifying the elite and with it, the key institutional orders, it is possible to see the state of the field of power, to see the factions within the elite and examine the elite settlement. Which are the key institutional orders? Is there an emerging counter-elite? Is there a dominant faction within the elite? Are the elite unified? What is the social character of the elite?

When the power elite are defined, you can see their social character. As to the profiles of the power elite: Where are they educated? Where do they live? How many come from elite families? How many women are included? What is their lifestyle? Is there a shared culture?

The social character and how the elite are reproduced is, according to Raymond Aron (1950a, 1950b), one of the central elements in the description of any society. The change from aristocratic rule to bourgeois parliamentarianism is as much a change in social character of the elite as a change of constitution. Although the composition of the power elite – its key institutional orders – is related strongly to its social character, they are two independent phenomena. First, when the educational profile of the elite changes, it may signal a change in the techniques of dominance. Second, if the social background of the elite is becoming more exclusive, even among union leaders, it is because the elite is closing itself off (Michels 1949; Mosca 1939), a process that increases the distance between it and the general public. These changes may occur even without a change in the number of union leaders, politicians and CEOs in the power elite.

With the small welfare state of Denmark as a case, this dissertation will attempt to address both questions about the composition of the power elite and the social character of its members. Three articles investigate the dominant fraction of the dominant class, the corporate elite, within both a field-theoretical perspective and a social network analytical framework. From the outset, a new methodology based on social network analysis is proposed for identifying the power elite. In the final article, the Danish Elite Network comprising more than 5,000 affiliations, 60,000 positions and 30,000 individuals was used to identify a central core. The core of 423 people integrates the heads of the most prominent organisations in

Denmark: the prime minister, the CEOs of the largest corporations, members of some of the richest families, the union leaders, economists, and Her Majesty The Queen. This core, or power elite, is positioned centrally across all sectors within the network and is tightly knit by many diverse ties. The social profile of this group is very exclusive, with a very high representation of children of the upper class. These findings run contrary to some of the conclusions of the most prominent description of the Danish elite, the Danish Power and Democracy Study (Christiansen, Møller, and Togeby 2001; Christiansen and Togeby 2007). They claimed that the Danish elite are relatively open, with no substantial ties between the sectors within the group. This dissertation shows that this description is inaccurate. The power elite have a very exclusive social profile and the cross-sectoral ties in the Danish elite are more than substantial.

Naming and identification of the elite is the first and most central step in the study of power within our society. The way this is done frames all of the following descriptions and analysis. Drawing on the theoretical frameworks of Pierre Bourdieu and C. W. Mills, along with multiple correspondence analysis and social network analysis, this dissertation hopes to contribute to the methodology of elite studies and to the description of Danish society by both identifying and describing the power elite and the corporate elite.

Dissertation outline

In the following section, 'Defining or identifying the elite?', we will discuss the strengths and weaknesses of the dominant positional method for studying national elites. We contrast it with a discussion of both policy discussion networks and the method for power elite identification that is proposed in Article 6: 'The methodology of identifying power elites'. The following chapter: 'Distances', investigates the differences in the conceptualisation of distance within social network analysis and multiple correspondence analysis. The differences between the ways in which distance is used forms the basis for a comparison of the different elite populations in this dissertation. The third chapter, 'Data and craftsmanship', looks at the data sources available for elite research and how this affects the role of the elite researcher. The elite researcher is like a craftsman, a carpenter who pieces together a dataset from very diverse sources. In that process, he has to abandon some of the traditional virtues of the sociologist, such as anonymity. The chapter 'So what?', looks into some of the political debates that may be informed by elite sociology and the findings presented within this dissertation.

Defining or identifying the elite?

There is a fundamental difference between studies that derive their description of elite groups from theory and studies that derive their description from data. The difference is one of methodology and epistemology. Do we see theoretical descriptions of an elite, such as those produced by C.W. Mills (1956) and Bourdieu (1996), as descriptions that should be reproduced or tested in other contexts? Or do we use the concepts as epistemological tools that tease out the particularities within each case? Should we investigate the role of the military with the same thoroughness for the Danish case as in the American case? Or should we use the concepts of key institutional orders more flexibly and expect to see something different in Denmark?

In this dissertation, we do not test theories, but use them as tools and strategies to modify and adapt our methods to each particular case. By doing this we hope to create methods and construct data that are sensitive to the national particularities of the Danish case, in contrast to approaches that rely on the reproduction of theoretically derived elites.

In the following section, we will discuss the dominant method within studies of national elites, and its strength and weaknesses. (For a discussion of the decisional and reputation approach, see Article 6.) By pointing out the limitations inherent in the positional approach, we briefly present the case for a new method that is able to produce results that are in line with C.W. Mills' concepts of key institutional orders and the power elite. The data-sensitive method, based on social network analysis, is able to produce results that are comparable across countries and time-periods.

The positional approach

The positional approach is the most common method of studying national elites and has been used in countries such as Denmark (Christiansen and Togeby 2007), Sweden (Statens Offentliga Utredningar 1990), Norway (Gulbrandsen et al. 2002), Finland (Ruostetsaari 2013) and Germany (Hoffmann-Lange 1987). Ursula Hoffmann-Lange (2006:4) describes the process in the following way:

The positional method starts out from the formal structure of authority. It implies several steps. In a first step, relevant sectors have to be defined. Politics, public administration, business, pressure groups, media, and academia belong to the sectors that are mostly considered as being of primary importance. The next step involves the decision on the most important institutions/organizations within these sectors. They have to be determined according to sector-specific criteria (e.g. political decision-making authority, organizational membership, capital turnover). The third step involves the identification of top leadership positions within each of

these organizations, and the present incumbents of these positions are eventually selected as constituting the elite.

The researcher chooses the sectors and the ranking principle for each sector. In this way, the positional approach is in line with Pareto (Khan 2012). Once the ranking principle has been established, the researcher chooses how many organisations from each sector should be part of the elite. Finally, the researcher selects the positions within the organisations that are to be included. Each of these steps requires intense scrutiny and many theoretically informed decisions.

The Danish case can be illuminating for the difficulties that are inherent in the positional approach. By listing some of the numerous choices that lie in the construction of the dataset, we will arrive at the fundamental problem with the positional approach: Should the church be included in the elite? If so, how many? Only the ten bishops? Should we include leaders of other religious communities? The health sector in Denmark is very large, so should we include leaders of the largest hospitals? The head nurses? The most proficient doctors? If so, how many doctors? How should they be ranked? By their number of patients? Their number of scientific articles? Their salary? Should the board of the hospital be included? The chairman or the entire board? Do they have an independent strategy or is it all directed by the state? If not, then what?

There are no ready answers to these questions and it is reasonable to think that different researchers would give very different answers to them. The profusion of decisions leads to ad-hoc decisions as the researcher 'runs out of' theory to base decisions on. As a result, differences between studied populations could be due to national variation, but they could also be due to theoretical decisions, or worse, ad-hoc decisions. Adding to this, similarities between countries could also be explained by conventional thinking among elite researchers. If the included sectors tend to be the usual suspects, then we could fear that substantial national variation goes undetected. In a Danish context that could be the relatively large influence of co-ops, union-led finance and farmers' associations.

It is a virtue of the positional method that it relies heavily on the formal positions within organisations. In this way it is in line with John Scott's emphasis on positions of command and the crucial role of organisations for the elite (Scott 1996), but the question of which positions to include from each organisation is of great importance, as the sample can easily become both too restrictive or too inclusive. If the population is restrictive, we may miss individuals who are central within the elite because they hold several positions, none of which by themselves would qualify individual for inclusion. These multipositional individuals could wield considerable influence, especially as bridges between otherwise unconnected sectors. These multipositionals would often be former politicians, CEOs or top bureaucrats.

Their connections to other powerful players make them valuable additions to any board, and they are the obvious candidates for positions in public commissions. They play an integral part of the integration of the elite.

Even with this criticism of the positional approach in mind, there is still good reason to use the positional method for studying sub-elites. The differences between the social characteristics of the different sub-elites can be mapped out in a field in which it is possible to identify the primary positions and oppositions (Hjellbrekke et al. 2007; Hjellbrekke and Korsnes 2009). It is important to be aware that descriptive analysis of the characteristics of the entire populations should be avoided (Hoffmann-Lange 2006), but the questions of both size and composition of the elite remain unanswered by the positional approach. This is what the social network analytical approach promises to answer.

The social network approach

Social network analysis has been an integral part of elite and power studies for a long time (Domhoff 1978; Scott 1991), used to find the connections between otherwise disconnected elites. In social network analysis, the theoretical definition of the elite lies in the construction of the network. What counts as ties and what counts as nodes? Are the ties binary or do they measure tie strength? Which method for measuring centrality or communities is going to separate the elite from the non-elite?

Within social network analysis, there are several traditions in the study of elites, of which corporate interlocks studies (Mizruchi 1996) and policy discussion networks are the most important. Interesting studies have been conducted on policy discussion networks (Laumann, Marsden, and Galaskiewicz 1977), where a sample of respondents identified via the positional method are asked to name the people with whom they discuss political issues. People outside the original sample who are named are then included in the sample. In this way, the size and composition of the elite are derived from the data, not as direct result of the researcher's decisions (Moore 1979). Even with all the merits of policy discussion networks, the methodology is burdened by three flaws that may account for the relatively few studies in this vein. First, relying on the participation of elite individuals in the data collection is a great barrier. They are very busy, so it is increasingly difficult to get appointments, and because it is nearly impossible to guarantee anonymity, their answers may not always be candid. Second, because ties are between people who discuss policy, politicians are naturally central within the network. But there are many other forms of power and influence than that which tries to influence what is generally understood as politics. Within politics, we also

find clear hierarchies and only a few politicians are actually influential in forming policies, but in a network that focuses on political decisions, lower-level politicians may appear more central than their influence justifies. Third, the number of ties and with it, the density of the network, is also a function of the number of people the respondents are allowed to mention and how many they remember. The size of the elite is therefore in part derived from the length of the interview or the survey-name generator.

Identifying the power elite

In Article 6, we propose a new methodology for identifying power elites that includes a data collection strategy, a weighting procedure and a group-identification algorithm. The method is described in much more detail in that article and the data collection process is described in Article 5: *The Danish elite network*. The primary qualities of the method are simple criteria for data inclusion, data-sensitivity, lack of need for elite collaboration, reduced number of arbitrary decisions, comparability, reproducibility and stability. By using a method that is able to handle fairly diverse and large amounts of data it is possible to identify an elite that forms the core of a network that is tied together by interaction. The composition and size of the elite are not defined theoretically by the researcher, but are a result of the data and the theoretically defined weighting scheme.

There are also weaknesses, of course. The weighting procedure is a theoretical model of how integration works in groups. The model draws on studies of the relationship between group dynamics and group size (Buys and Larson 1979; James 1951; Zhou et al. 2005). Based on only the number of people in the affiliation and the number of ties between two individuals, the model is very crude, so it supposes that all affiliations of the same size are integrative in the same way. However, a strength of this weighting procedure is that it can easily be transformed and corrected. For example, the inclusion of a time dimension in the weighting scheme would be fairly unproblematic, given the right data. The weighting procedure could take into account how long a tie had been present and how long it had been absent. This would not change the procedure fundamentally. However, this might not be the case for other relevant types of ties, most importantly, data on family ties and ownership (Bohman 2012). In the current simple model of social integration, all ties are symmetric and undirected. Ownership, on the other hand, integrates more strongly from the owner to the employee than the other way around. Family ties are possibly very strong, but there is no way of knowing if they are bound by interaction like all the other affiliations. The family could be a family in name only. The same applies to ownership. Passive ownership might not integrate at all.

Even if the crude weighting scheme is unsatisfying, it has proved itself sufficient for the identification of a small cohesive group comprised of a large part of what in the positional method would be regarded as the elite. But the identification of a group that is both central and cohesive is not the same as a coordinated or powerful group.

But do they decide?

The classic critique of elite sociology that relies on both the positional method and social network analysis is whether the identified groups influence important decisions. It is claimed that having the potential for influence and power is not the same as having power and influence (Dahl 1958). Proponents of the decisional approach prefer to identify the elite by following key decisions; those who are able to influence the decisions are members of the elite. Inherent in this line of thinking is that the elite should dominate and members should therefore have their will established before they can be categorised as elite. This is in contrast to defining elites by power resources, as through the positional approach and ruling elite theory. The debate between people focusing on decisions and proponents of a ruling elite theory ended in a long debate about concepts of power (Domhoff and Ballard 1968) that we will not dwell upon. It is the difference between potential power and the usage of power that is essential to the methodology used in this dissertation. Can we assume that a person who is central within an affiliation network is using his power and winning?

It is important to note that, whereas centrality is a correlate to social capital (Bourdieu 1986) and therefore a power resource, there are less abstract forms of power in an affiliation network. The affiliations that make up the network may be mere social clubs where people network for ideas and contacts, but the vast majority of the networks in corporate interlocks studies and in the Danish Elite Network (see Article 5) are far from social clubs. The vast majority of the affiliations in the network have direct decision power over one or several organisations, while others formulate or advise strategies. In addition to their position within these affiliations, the individuals who make up the network also have their full-time employment. A minority of the approximately 30,000 people in the network have jobs that are influential at the national level, but within the core of the network this is very common. Therefore, the network is composed of influential affiliations and within the core of the network are people who, in addition to their affiliation memberships, have jobs such as professors, CEOs, politicians and lawyers.

On a similar note, it is important to dispense with a middle-class understanding of power and decision-

making. An average middle-class individual may only rarely, if ever, make decisions of any importance to society. In this sense, power is something extraordinary. This is not the case for the power elite. Decisions are part of their everyday lives and their careers often last decades. Over this period, the influence they might have is substantial. Even if important decisions may go against them, they can still influence a large amount of relatively smaller decisions.

Although the affiliations that connect the power elite are influential in and of themselves, efforts across affiliations are not necessarily coordinated. **Then again, the decisions produced within these affiliations are usually supported without dissent – within the affiliation.** Hence, there is coordination and collaboration between elite members within the affiliations, but not necessarily across affiliations. This leaves relatively unanswered the big questions about a shared elite ideology, elite coordination and elite efficiency.

Summary of the papers

The summaries of the papers co-authored with Christoph Houman Ellersgaard are identical to the summaries in his dissertation (Ellersgaard in press). The same applied to the shorter summary of papers at the end of this dissertation.

1. A very economic elite - The case of the Danish CEOs

Published as Ellersgaard, Christoph Houman, Anton Grau Larsen, and Martin D. Munk. "A Very Economic Elite: The Case of the Danish Top CEOs." *Sociology* 47, no. 6 (2013): 1051–71.

Taking the 100 most important Danish CEOs as an empirical case, this article shows how the career paths of Danish managers are tied to the specific features of the Danish economy. However, this does not mean that the social backgrounds of the Danish CEOs are not similar to their German, French and British counterparts. Both now and historically, a very disproportionate number of the managers in industrialised countries have come from bourgeois families.

The educational backgrounds and career trajectories of Danish CEOs are compared to their counterparts in Germany, France and the UK, using the framework of Michael Hartmann (2007, 2010). Denmark is similar to Germany in that no elite universities can be identified, even though the Danish CEOs have a very specific educational profile. This can also be explained by the decline of the Danish elite university, the Technical University of Denmark. However, unlike in Germany, very high volumes of institutional cultural capital in the form of doctorates are not commonplace among Danish CEOs and university degrees do not appear to be the most essential requirement for entering top management.

As in the UK, CEOs can move to the top by accumulating organisational capital in the corporation. Furthermore, as shown by multiple correspondence analysis and cluster analysis, about a third of the top Danish CEOs follow a distinct path as salespeople, working in many enterprises and in sales or marketing before reaching top management.

Theoretically, this article attempts to show the pathway to becoming a part of the capitalist class through many years of adaptation within particular institutions and organisations. Although elite universities do not seem to play a central role in producing a certain habitus, as was the case in the Bourdieu's (1996) analysis, individuals in the few professions allowed to enter management have developed a specific way of thinking. Furthermore, particularly for those not native to, or inheritors in the field, the habitus of the future CEOs

is shaped by many years in the corporate world. Whether they start from the position of expert or salespeople, all must work their way up the corporate ladder and become men of the firm. In their employment, their career trajectories place them close to the values of the corporation. Adding to this, the different reproduction strategies leading to the different career profiles of CEOs in the above-mentioned countries show the arbitrary nature of the skillsets needed to legitimise management, even in highly developed countries. The fact that only two of the 100 top CEOs are women underline the social closure of the management culture.

Methodologically, the article uses MCA and cluster analysis to identify the specific forms and combinations of capital important within the field of management in Denmark. Following the discussion in Chapter 2, we base the differences on theoretically specified relations – career path, education and family background – and let these relations determine the structure of the field. From the constructed field, we use cluster analysis to explore ideal types of CEO career profiles. The ideal types – inheritors, organisational personnel, experts and salespeople – are derived by following a theoretically informed, descriptive approach. The clusters, identified by analysing the reproduction strategies and career trajectories of the Danish managers, are interpreted in relation to the major European industrial societies. Here, the particularly Danish trajectory is that of the salespeople, which has no equivalent in either France or the UK.

2. Status and Integration in the Field of Power of Danish Chief Executives

Published and translated into English from Larsen, Anton Grau, and Christoph Houman Ellersgaard. “Status og Integration på Magtens Felt for Danske Topdirektører.” *Praktiske Grunde. Nordisk Tidsskrift for Kultur- og Samfundsvidenskab* 2012, no. 2–3: 9–30.

The top 100 CEOs whose path to the top is explored in Article I, are in Article II explored with regard to their current position in the space of top CEOs. Using Bourdieu’s notions of symbolic, social and economic capital, we identify the internal hierarchy of the top managers. The first main finding, however, is that, even among the top 100 CEOs, not everyone plays in the same field. Twenty-eight CEOs had neither participated in other prestigious networks nor been decorated by the Queen, and were thus excluded from key sources of social and symbolic capital. This shows how, even among a very select group such as the CEOs of the largest Danish corporations, it is not sufficient just to hold a commanding position to enter the prestigious networks.

The space of the top CEOs is explored through specific multiple correspondence analysis. However, the

space is highly hierarchical, with one strong principle of opposition: the total volume of symbolic, social and economic capital. It seems that these forms of capital are accumulated through the Matthew effect, where possession of capital helps in the further accumulation of capital. The accumulation of these forms of capital does not tell only of internal prestige among top managers; it also tells who is included in the field of power. As for the network strategies of the top CEOs, a secondary opposition is found between owners and managers. Whereas managers principally engage in networks and achieve prestige tied to the economic field, owners are more likely to engage with other subfields in the field of power, having positions in academic institutions, on government committees or attracting royal decorations. This shows the freedom enjoyed by owners in not needing to legitimise their position in management to the rest of the economic field, thus being able to convert their economic capital in the field of power.

The position of a top manager cannot be understood from personal attributes alone. A central feature of the position of the CEO is the economic strength of his corporation. Even more important are the number of employees and the symbolic status of the firm, as seen in the number of books with the corporation as subject. This shows the close relationship between the individual and the organisation or institution he or she leads when entering the social sphere of the power elite. However, the social background and education of the CEO also matters, as shown in the typical educational profiles of the inheritors and the managers who feature in the core elite network identified in Article VII.

Of the CEOs studied in Article I, 46 were also identified as members of the power elite in data five years later, in Article VI. Of these, 42 appear among the 72 active CEOs in this analysis (for more on the relationship between the two analysis, see Larsen in press) As this article was written before the work for Articles III, V, VI and VII, the concluding remarks lay out the reflections leading to the research design of these articles by speculating on the size of a potential power elite in Denmark.

3. The Inner circle revisited – the case of an egalitarian society

Co-authored with Christoph Houman Ellersgaard

Submitted to *Social Forces*

Michael Useem's notion of the *Inner Circle* (1984) proposed a key solution to understanding how the class-wide rationality of the capitalist class functions. By using the networks created in the interlocks of top corporate boards, Useem argued how the dominant faction of the economic elite in fact constitutes a social group. With this notion as a point of departure, in Article III we explore whether or not a similar group can be identified in a very different setting, that of egalitarian, corporatist Denmark.

Methodologically, the article also offers a new methodology for identifying the inner circle, one that is not solely based on numbers of board memberships. By using the proximity measure developed for identifying social circles by Alba and Kadushin (1976) we identified the inner circle of the Danish corporate network, which is in line with Useem's theoretical and qualitative observations. An exclusive group of 171 inner-circle members was found among the 6,154 executives and board members from the 1,037 largest Danish corporations.

The presence of this group and the heavy accumulation of network centrality in the corporate network does indeed suggest the existence of an inner circle in Danish business. But central positions in the corporate sector do not come at the expense of inclusion in the networks of other sectors (described thoroughly in Article V). On the contrary, inner-circle members are much more likely to participate in all other sorts of powerful networks, in particular the most prominent of these networks, than any other group in the corporate network. The inner circle is disproportionately active in the boards within business associations, the state councils and committees, the scientific and academic institutions, and the boards of cultural or media institutions. These boards each constitutes the most important positions in other subfields within the field of power. Furthermore, social clubs and symbolic institutions such as foundations and royal balls constitute key networks integrating the entire elite. The inner circle thus also constitutes the politically active faction of the capitalist class. Thus the inclusion criteria for the inner circle in some ways parallel the inclusion criteria for the field of power.

Much like the top managers described in Articles I and II and the power elite described in Article VII, the members of the inner circle are a very select social group, of whom more than three out of 10 have a known social background and grew up in the managerial class. When it comes to education, as for the power elite as a whole and the top managers in particular, the same select few programmes in business administration, economy and engineering dominate. Although women are over four times more likely to be included in the inner circle than in top management, they remain a tiny minority of only 8 per cent. We argue that the cohesion and class consciousness of the inner circle are further enhanced by the similarities in social origin, educational position and occupational trajectory.

Of the inner-circle members, 30 were also among the 100 CEOs analysed using data from five years earlier in Articles I and II. Of these, only five were not among the 72 CEOs analysed as active individuals in the field of top CEOs in Article II. Ninety-two of the inner-circle members were also part of the power elite found in Article VI; therefore, 106 of the power elite members from the corporate sector were not part of the inner circle. This reveals one of the weaknesses of this study: that it uses only the ties made on

corporate boards, ignoring the multitude of other affiliations that tie the corporate elite internally as a self-conscious class. This means that the identification of the inner circle can be somewhat inaccurate. However, because we explore the activities of the inner circle in these other networks, the use of position to identify ties in these networks would risk becoming a mere tautology.

4. Who listens to the top? Integration of the largest corporations across sectoral networks

To be submitted.

Whereas the other articles in this dissertation focus primarily on the position and character of the elite individuals, this article focuses on the organisational underpinning of the network. Article IV asks the basic question: What characterises the corporations that are successful in integrating across sectors? This question is important as focusing on the individual could lead to the fallacy that the individual characteristics of the director determine the extent of its network. Although manners, tastes, education and the right pedigree are without doubt important factors for elite integration, they can only explain a fraction of elite integration. Although it is impossible to discern how much of a director's connections should be attributed to his or her success or to the success and prominence of the corporation that he or she leads, this study shows that cross-sector ties are made primarily by chairmen or directors of the 250 largest corporations.

The important characteristics of the corporations were investigated by integrating the network of interlocking directors of the top 1,037 largest corporations by turnover and the affiliation network of seven sector networks. Inclusion in these networks (the networks of business organisations, interest groups, science and education, culture, the state, royal events and affiliations, and leadership) was analysed within the field-theoretical framework of Neil Fligstein (1996a). Fligstein proposed that the large corporations try to influence the written and unwritten rules that govern their fields (or markets) in order to stabilise the field and avoid competition. It is claimed that incumbent firms are the most active and organised and therefore are the most active in cross-sector networks. It is also shown that the position of the corporation within the economic field, its ownership, and the relationship of the corporate owners to the field of power are central to understanding cross-sector ties. Furthermore, it is argued that the symbolic capital of being one of the most honourable and prominent firms is more attractive to network partners than being an unknown corporation.

The results show a single, fairly exclusive component of 475 corporations in the network of interlocking

corporations. The seven other sector networks are generally more inclusive. The core of the corporate network (well-connected corporations) is dominated by incumbent firms and also holds a large number of cross-sector ties. These corporations form the organisational underpinning of the inner circle, found in Article III. Correlations between turnover and the number of sector memberships held by the boards of directors show that, across all sectors, the correlation between size and integration is strongest among the top 250 corporations. This indicates that the economic field in Denmark is split into two classes, with the top 250 corporations well-organised in the corporate sector and holding many ties across sectors. But it is not only size that matters. Corporations tied to finance and the co-op movement are also more likely to be well-connected, having owners who are strongly tied to the most important sectors in the Danish economy: unions, the state, and business organisations. Those same sectors are identified as the key institutional orders in Article VII. The antitheses to these corporations are the subsidiaries of the Global 500 corporations, who are less integrated across all sectors. The role of symbolic capital is investigated by way of regression analysis. There are differences in the influence of indicators of economic and symbolic capital across the different sectors, but symbolic capital is important in all sectors. The integration of corporations in culture, the state and royal affiliations relies more heavily on symbolic capital than on the corporate network and business organisations. The independent effect of symbolic capital indicates that the status hierarchy in the economic field is based not only on economic strength but on prestige and prominence.

5. The Danish elite network

Co-authored with Christoph Houman Ellersgaard

Submitted to *Connections*

This article serves a dual purpose. First, it gives an in-depth description of the data used in article III, VI and VII. Second, submitting the article to the journal *Connections* allows us to share the data with scholars around the world. The dataset have the specific focus, explored in Articles VI and VII, of identifying the core of the elite network in Denmark. All potentially powerful or elite integrating networks were collected by applying an inclusion principle. However, as argued, all of these networks have also had to provide complete lists of attendance and take the form of physical gatherings, thus being tied to the integrative effects of interaction rituals discussed earlier. The sources and procedures of gathering such extensive data are discussed.

This article accounts for how we have identified and registered all potentially powerful Danish affiliations:

the largest Danish corporations, the most important state institutions, and organisations recognised politically by the state and other potentially powerful or integrative networks such as social clubs or royal events. Furthermore, we present the procedure for enhancing the reliability of the data through checking for overlapping or embedded affiliations, and the name-matching procedure.

As shown in Article III on the inner circle of the Danish corporate network, where an inner circle (Useem 1984) in the network of corporate interlocks is identified through the use of the proximity measure defined by Alba and Kadushin (1976), it is also possible to analyse smaller sub-networks within the Danish elite network or the role played by different organisations within the elite network. Indeed, the data have already been used by our students in various analyses at courses held at the Department of Sociology, University of Copenhagen. Sharing the data and the R software codes used to perform our analysis and weighting procedures, constitute an important step in generating democratic access to the study of the elite. Furthermore, the reproducibility of the analysis is thus greatly enhanced by this technical article.

6. The methodology of identifying power elites

Co-authored with Christoph Houman Ellersgaard

To be submitted

The central aim of this paper is to provide a methodology to identify power elites. Based a notion of the elite as central individuals across power networks, we provide a way to identify the core group of the elite networks based on empirically observed affiliations, rather than by defining the elite a priori. The traditional ways of identifying elites through the positional, reputational, decisional and related methods all rely on ad-hoc decisions based on the researcher's assumptions. These ad-hoc decisions determine the size and composition of the elite, which, as shown in Article VII, are actually key features of the power elite.

This article proposes and tests a three-step procedure for identifying the elite. The first step is to determine the composition of the elite empirically, by constructing a large database (see Article V), using an inclusion principle. Using this principle, all potentially powerful or socially integrative elite networks were taken into account.

The second step suggests using two types of sociometric weights to account for the huge variations in the character of the included affiliations, from the intimate decision-making atmosphere of the corporate boardroom to the splendour of the royal ball. The first and most important weight used a baseline

gathering size of 14, below which gatherings are regarded as equally integrative. From this point, the integrative effect of affiliations gradually drops due to the weight. As the number from which the integrative effect drops is set to a weight constant, the effect of altering the constant is tested, showing that the size of the core group, logically, is enlarged as the effect of the weight diminishes, but that the core of the network continues to be part of the core. A second weight, reducing the effect of sharing multiple common affiliations, was applied as well to reduce the effect of some types of organisations having densely interlocked multiple governing bodies.

In the third step, the core group of the elite is identified using k-core decomposition developed by Seidman (1983), by reinterpreting the extension made by Doreian and Woodard (1994). Looking not only at the direct contacts of elite members, but also at their extended network, individuals within a certain reach are deemed to be connected. A power elite core of 423 individuals was identified, each of whom was connected to at least 199 of the other core members. There was no subgroup with a higher minimum number of internal connections in the network. Each individual was given a coreness score that is the level at which it is peeled from the core. This number of minimum degrees makes it possible to identify different levels of power elite integration. The main advantage of using k-cores is that it does not take into account all the included affiliations who turn out to be of lesser importance. The size and composition of the elite network are thus practically independent from the number of redundant networks included, allowing this to bypass many of the ad-hoc decisions of the four traditional methods of identifying elites.

The approach was tested in several ways. Results were compared to a population selected through the positional method, showing that many, but not all, key leaders are included, especially those from organisations, academia, business, politics and state administration, while the wealthiest, the clergy and the media are often excluded. The consequences of not including data from each data source were also explored. The consequences of excluding both central and peripheral networks were then tested. The method is very resilient to losing affiliations from the periphery, but is fairly vulnerable to losing central affiliations that connect many within core. Finally, the consequences for the size of the power elite were tested by altering the affiliation size at which the weight takes effect or by altering the reach needed to be included in the core, showing how enlarging these enlarges the core size, thus underlining the importance of sound theoretical arguments determining these constants. However, if the arguments are valid, the size and composition of the elite can shed light on central aspects of society.

7. The power elite in the welfare state – key institutional orders of the power networks in Denmark

Co-authored with Christoph Houman Ellersgaard

To be submitted

By reinterpreting C. Wright Mills' notion of the power elite (1956), the key representatives of each societal sector are identified within the core of the power network in Denmark. The power elite are characterised by three points: by simultaneously holding top positions in their respective institutional hierarchies; by having power resources valued by agents from other institutional hierarchies; and by forming a cohesive group tied by multiple shared affiliations. We argue that the composition and size of this group reflects the relative importance of different institutional orders and the concentration of power within the limits of the nation-state.

Using the methodological strategies developed in Article VI, we identified a core of 423 individuals. This core enjoys all the accumulative advantages associated with having large quantities of social capital and status. This means that selection to the potentially powerful networks is skewed heavily towards those elite who are already-established, suggesting that egalitarianism is not a criteria when selecting decision-makers, even in a society heralded as having one of the best practices of state-building. This is also seen by the fact that members of the power elite – and of the most central boards in each sector – are invited to the central boards in networks of other sectors. This logic of inclusion in the network was explored, showing how the core is composed of individuals who have affiliations in many different sectors, typically the most prestigious networks in these sectors. This shows the importance of accumulating convertible capital and explains why media celebrities and artists are not part of the power elite in Denmark.

Even though they are tightly connected, this elite group in the twenty-first century Scandinavian welfare state includes leaders from the key institutional orders: business, state and politics, and unions, whereas the academic world, in particular economists, are among the few outsiders. Other sectors that could be perceived as being part of the establishment, such as law, culture, media and the clergy, all have marginal positions at best. More than half (221 of 423) of this elite have a primary position in either the corporate sector or business associations, underlining the strength of big business. The individuals in the core with ties to the corporate sector are to a large extent the same individuals identified as the most prestigious inside the economic field in Article II and in the inner circle of the corporate network in Article III.

While spanning very different organisation, the power elite are integrated by factors other than their shared ties. The 423 have a homogeneous social profile based on, for example, gender, class background, education and residential patterns. For instance, less than 20% are women. The more elite individuals (15%–12%) are among the 0.2% of Danes who have parents mentioned in *Who's Who*, unlike the 81% coming from the working classes. Almost half have attended just eight university programs (e.g. economy, law or political science) and the elite cluster in particular affluent areas around northern Copenhagen. This strengthens the cohesion and class consciousness of this elite minority.

We argue that the 423 core members of the power elite are a committee for managing the affairs of the power elite as whole. We discuss how the limits of influence of a national power elite such as the Danish may be narrowing because of the rise of transnational capital and the European Union, but the structure of the power elite still reveals insights into which institutions have had the historical strength to become part of the inner circles of power.

Chapter 1: Distances

The different methods that are used in the articles in this dissertation present, among many other things, a progression from one way of thinking about distance in the first article, to a rather different way in the last. There is a movement from the distances in a field produced by multiple correspondence analysis (MCA) to social network analysis (SNA) with its very different way of dealing with social distance. In an MCA, all individuals and categories have a distance from each other, whereas distances in an SNA are very different. In SNA, unconnected individuals are separated by infinite distances. This and other differences between MCA and SNA and some limitations of MCA are discussed in this article. We then discuss the progression evident in the shift in methods from Article 3, about the inner circle in the corporate network, to Article 6, where a new methodology for elite identification is presented. Both are within the social network analytical framework, but where Article 3 measures the *social proximity* between individuals (How many of the people that I know do you know?), Article 6 measures *social distances* as the number of people I need to go through to get to you. We will examine the arguments for and against both measures. Finally, we will compare the three different elite populations that are analysed in this dissertation: the top 100 CEOs, the 171 members of the inner circle and 423 members of the power elite.

These discussions that circle around the concept of distance are a way of digging into the methodological issues at the heart of the group identifications, but they are also describe the discussions that are at the heart of descriptive sociology. How do we present the social world in the images we produce? What is the way the methods approach relations and how does it affect the groups that we identify?

Relations in MCA and SNA

This thesis has relied primarily on SNA and MCA. The two types of analysis share many similarities. They are both descriptive in nature. They deal with relations and study structures. In this way they are different from substantialist approaches (Emirbayer 1997), where the individual and his or her properties are stable regardless of their position in a greater structure. When MCA and SNA are mainly used descriptively it means they are used neither within a framework where the researcher tests clear hypotheses nor in simplistic models. In a simplistic model, the researcher reduces the analysis and categories used to the bare minimum to convey a clear answer to a hypothesis. It is, on the other hand, a virtue for descriptive analysis to handle and convey complexity and particularities within the data. This is especially the case for MCA, which is able to convey information on the relationships between a large set of variables at once. In an

MCA you are allowed to have very specific and detailed information on, for example, the specific university program, such as economics at the University of Copenhagen. In a regression analysis this level of detail is hard to convey. Because detailed description is important, MCA and SNA rely heavily on graphical presentations. These enable both academics and non-academics to construct and participate in the interpretive narrative of the analysis. Rather than testing non-intuitive models, graphs produced by both methods tell stories.

Because they deal with the relationships between individuals or properties, MCA and SNA are relational (De Nooy 2003). In MCA, the position of a category is defined by the correlation of all other categories so that the category is understood not only in relation to the individuals in it but also in relation to all other categories. In SNA, the ties between individuals create a structure that forms the basis for several descriptive techniques, such as centrality measures (Freeman 1979), role structures (White, Boorman, and Breiger 1976) and clustering algorithms (Palla et al. 2005; Scott 1991). These techniques are informed by the total network structure and the position of all individuals changes along with the smallest change in connections between individuals. Recently, the two methods are increasingly used together. Some researchers use centrality measures from SNA as supplementary or active variables in MCA analysis (Bühlmann, David, and Mach 2012), whereas others use MCA coordinates for SNA plots (D'Esposito, De Stefano, and Ragozini 2014). In the articles in this thesis the two methods are not used together. This is because the data requirements for such an analysis are considerable and two different populations are analysed.

There is a progression in the way the two methods have been applied in the articles: MCA has been used on data collected with the positional approach; and SNA has been used for group identification.

In the first article, 'A Very Economic Elite'(Ellersgaard, Larsen, and Munk 2013), the analysis used is a specific MCA paired with hierarchical cluster analysis. The clustering algorithm identifies four distinct types of career patterns among the top 100 directors in Denmark. The second article, 'Status and Integration in the Danish Field of Power Among Top CEOs' (Larsen and Ellersgaard 2012), is based solely on specific MCA. Here, the use of supplementary variables allows for an analysis of the relationship between characteristics of the CEO and the corporation that he or she heads. In the third article, 'The Inner Circle Revisited', SNA in the form of a measure of social proximity (Alba and Kadushin 1976) is paired with hierarchical clustering for the identification of the inner circle of the corporate network. In Article 4: 'Who listens to the top? Integration of the largest corporations across sectoral networks', SNA and regression analysis indicate the relationship between characteristics of the corporation and ties between the corporate

network and other sectors. In Article 6: ‘Identifying power elites – a social network analytic approach’, we use SNA in the form of a k-core clustering algorithm on a weighted network to identify the size and composition of the power elite. In Article 7: ‘The Power Elite in the Welfare State’, we use SNA to investigate the characteristics of the power elite and their role in the entire network.

There is a progression in methods from the first article to the last, but the most central change is from Article 3, about the inner circle, to Article 6, where a new method for elite identification is presented. We move away from hierarchical clustering and on to the k-core decomposition algorithm. This transition is based on several properties of the methods that will be discussed in one of the following sections. Central to the difference between the two methods is how the two methods understand the distance between two individuals. Distance and its relationship to similarity is also at the heart of some of the limitations of MCA. These limitations are of some importance to the social imagery produced by the sociologist.

Similarity, the masses, elites and the limits of MCA

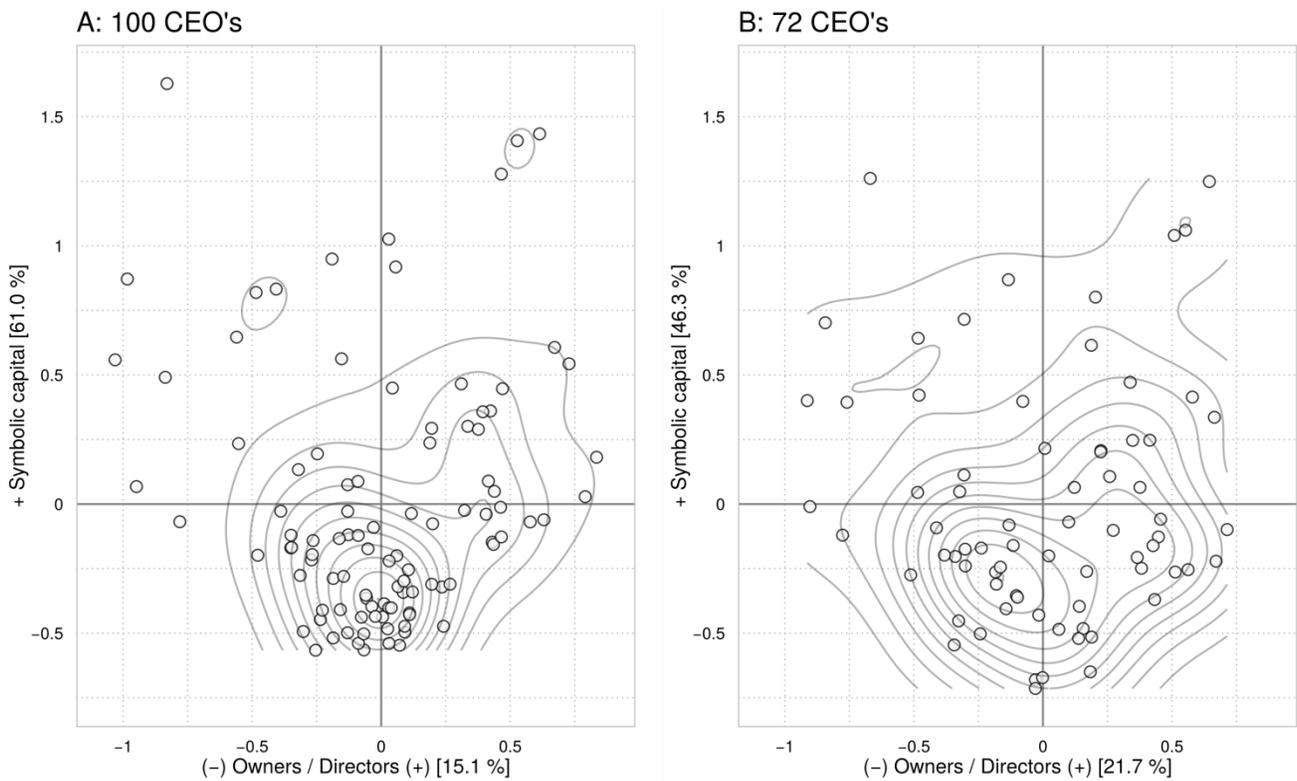
Sociology, especially descriptive and relational sociology, is focusing increasingly on the social imagery it produces, most importantly in its statistical graphics(Healy and Moody 2014). One of the central appeals of the MCA approach is its ability to produce dense and informative plots of both categories and individuals (Le Roux and Rouanet 2010). When looking at analysis of the entire social space (Bourdieu 1984), or the social space of a local community (Prieur, Rosenlund, and Skjott-Larsen 2008), readers can try to position themselves in the space. This exercise is an example of how sociology might combine the biography of the individual with the social structure (Mills 1959; Savage 2013), but the approach has its limitations when it comes to elite research because unless the dimensions become unbalanced, the distances in the space have to be relatively small.

Multiple cluster analysis can only handle data where the individuals are fairly equal. If they are not equal then the relatively deprived tend to concentrate and the cloud of individuals becomes skewed into a horseshoe-like shape (Baccini, Caussinus, and de Falguerolles 1994). In Bourdieu’s terms, the individuals must be playing on the same field (Lebaron 2009); then, only one dimension is present and the differences within the elite disappear. Often, this is assumed to be the result of missing data on that which differentiates at the bottom of the field, but that assumes that the bottom of the field has a set of ‘counter cultures’ with their own patterns of recognition. This may be the case for some fields, but it runs contrary to the general theoretical framework of elite sociology, which has a differentiated elite and a homogeneous mass that makes up the vast majority of society (cf. Mills 1956). From this perspective you would assume

that power and capital accumulate exponentially and are fairly correlated. You would therefore assume that the bottom of any specific elite subfield would most resemble the general masses and that they would not be as differentiated as those at the top of the field. But studies of the entire elite or the field of power are less likely to be affected by this because there is a larger diversity in the forms of capital (for examples see: Denord et al., 2011; Hjellbrekke et al., 2007)

If enough of the those most similar to the masses are included in the analysis, MCA cannot distinguish within the top stratum. This problem arises very quickly, as can be seen by the analysis of the composition and concentration of symbolic capital among the top 100 CEOs in the Danish economic field. Figure 1 presents two clouds of individuals based on the dimensions found in Article 2. The strongest dimension, presented vertically, is the total amount of symbolic capital in the field of power. The second dimension shows the distinction between owners and directors. The map A includes all of the top 100 CEOs according to corporate turnover. The map B has excluded the 28 CEOs who have no indicators of symbolic or social capital. They are all positioned at the centre and below origo. By removing those 28 CEOs, the distance in strength between the two dimensions is reduced from (61% - 15%) 46% to (46% - 22%) 24%.

FIGURE 1. POPULATION SIZE AND CLOUD SHAPE



The second solution is by far the most balanced. Even though the interpretation of the two analysis is the same, it is the preferred solution. The density lines in the two maps are fairly different, which shows the differences in the shape of the two clouds. Map A has a large concentration below origo, whereas map B is more dispersed and 'round'. Several things can be learned from this exercise, but first and foremost is that MCA is able to produce dimensions that have very stable interpretations. Secondly, we learn that the differences in symbolic capital among the top 100 CEOs are so large that the bottom third are completely excluded. This underlines the importance of very strict selection criteria for the definition of elite populations. If the differences in this select group of 100 CEOs are too large, then it is very difficult, if not impossible, to analyse the entire social space and still keep the most distinctive variables active. This is clearly the case, as the amount of individuals who hold the most privileged properties account for less than 1% of the population. This collides with the methodological rule that any category (or modality) must be held by 5% of the analysed population (Le Roux and Rouanet 2004:216).

The elite researcher then must choose between creating a plot of the entire social space without defining the most distinctive variables as active, or perform a separate analysis of the top of the field. Both of these solutions reduce the readers' ability to place themselves within the social structure, to measure on paper how far or how close they are to the elite.

Distances in a field and a network

The concept of social distance plays a important role, theoretically and especially methodologically, in all of the articles presented in this thesis. There are two types of distance: a distance of properties in the social space and a distance in chains of interaction and integration. The distance in the social space, like that described above, comes from a Bourdieusian framework but also has roots in classical elite theory. Mosca, for example, referred to the gap or distance between the social types of the elite and the general population (Mosca 1939). We find this concept of social distance in the analysis of the social character of the top career patterns of the CEOs, the inner circle and the power elite in Articles 1, 2, 3 and 7. The difference between the characteristics of the general population and the elite group is deemed to indicate the degree to which the elite is closing itself off. The longer the distance, the more different are the elite and the general population on almost all parameters, from attitudes to life chances (Bourdieu 1984), even if the extent of this relationship in elite populations is debated (Edinger and Searing 1967). Interestingly, the distance between social categories such as class can also be thought of in network terms (Beshers and Laumann 1967).

This sense of social distance is the heart of MCA and cluster analysis, as every point and every individual has a distance from each other. Individuals are clustered together equally by having or not having properties. In SNA, on the other hand, distances are fundamentally discrete. A tie is either present or not present and the distance between an individual and an isolated individual is infinite. Even if ties are weighted (Marsden and Campbell 1984, 2012), they fall into categories: 0 equals an infinite distance; and more than 0 is a measurable distance. In a large network with a low density, the number of 0s is by far the most common. Some methods, like block modelling, use these 0s, or the white space in a matrix, for analysing the position within the network and its structure (White et al. 1976).

Distances differ in their stability. In MCA, distances are stable and it is unlikely that an individual will move abruptly from one end of the space to another. This is because the distance from one individual to all other individuals is based on several variables. Furthermore, many Bourdieusian MCAs in elite research use variables that rarely or never change conceptually, such as gender, social origin and education. These variables create very stable fields. Distances in a social network, on the other hand, are much more unstable. If an isolated individual wins a position on a central and prominent board, that agent's centrality is increased massively from being infinitely isolated to being fairly central. Changes in centrality, especially the movement from isolated to connected, are unexplained within a strict SNA framework. Personal attributes, habitus and capital composition could account for what in an SNA analysis would be the inclusion of a maverick. Imagine, for example, a person who leaves a group for several years. In those years he accomplishes great feats and he brings back visible signs of his accomplishments. People are thrilled to have him back and they are proud to invite him into central positions within the group. From a strict social network perspective this movement from a fringe position to a central position seems random and unexplained. Within a field-theoretical perspective, however, he was always integrated in the field and he accumulated symbolic capital that was then reconverted into social capital. Parts of the instability and randomness of social networks are a result of the narrow focus on structure.

We now turn to a discussion of the differences in how the methods used in Article 3 and Articles 6 and 7 conceptualise distance, and the strengths and weaknesses of both approaches. This leads to a comparison of the results of the two analysis and how they relate to the analysis presented in Article 2.

Social proximity

In Article 3, we identify the inner circle of the corporate network by hierarchical cluster analysis. Here the two forms of distances are intertwined in the same analysis. First, we identify the largest component of linkers, directors with more than one board membership and a tie into the largest connected component.

By removing all hangers, individuals with only a single board membership, we remove individuals who by definition are excluded from the inner circle as they do not form interlocks between boards.

Here, distances between linkers and isolates are still infinite. The amount and interconnectedness of the isolates is therefore without consequence for the position of the linkers. We then produce a proximity measure based on the share of overlap between their 3rd neighbourhoods. This gives each of the 514 linkers a distance from each other ranging from 0 to 1, where 1 is a perfect overlap between neighbourhoods and 0 is no overlap. This 514 X 514 matrix is then analysed using a hierarchical clustering algorithm. The clustering algorithm produces distances that then form the basis for clustering. The individuals that are most alike are combined first and then these groupings are combined in a hierarchical tree structure until all individuals are combined into a single group. The researcher then chooses the height or number of categories that fits best with the theoretical assumptions. The number of categories obtained from a cluster analysis is decided by the researcher and not derived mainly from the data. In the analysis of the inner circle the best group had two properties. It was the smallest group, still holding at least 50 per cent of all ties in the network of linkers and where no group of important and notable directors – based on our qualitative, informed knowledge of the field – was left out. This process became much like peeling an onion, and stopped if directors who would be considered inner circle members were peeled off.

There are several benefits to this approach, but there are of course also weakness. The first weakness of this approach is that the process that identifies the final cluster, the inner circle, requires that the researcher is very knowledgeable about the particular field, in this case the Danish economic field. This requirement is very difficult to live up to when we are looking at elites who cross several fields, like the field of power. It is probably beyond most researchers' ability to have considerable knowledge of the most prominent figures within fields as diverse as politics, science, state administration, law, farming, unions, charities, arts and so on.

A second weakness is that when there is no single result from the algorithm it is very difficult to compare between countries, periods and fields. Are the differences in size and composition of the core a result of differences between fields or between researchers?

A third weakness is connected to distance and the size of data. We should always assume that we have too much or too little data in an analysis. The analytical tools should be able to handle this situation and the social proximity measure and the hierarchical clustering are fairly stable, but could change if the size of the data is changed substantially. You could argue the results of any data-sensitive method should change if you double the size of the data, but that is not the case if the method is supposed to identify a particular

small group that is not a proportion of a distribution but connected by interaction.

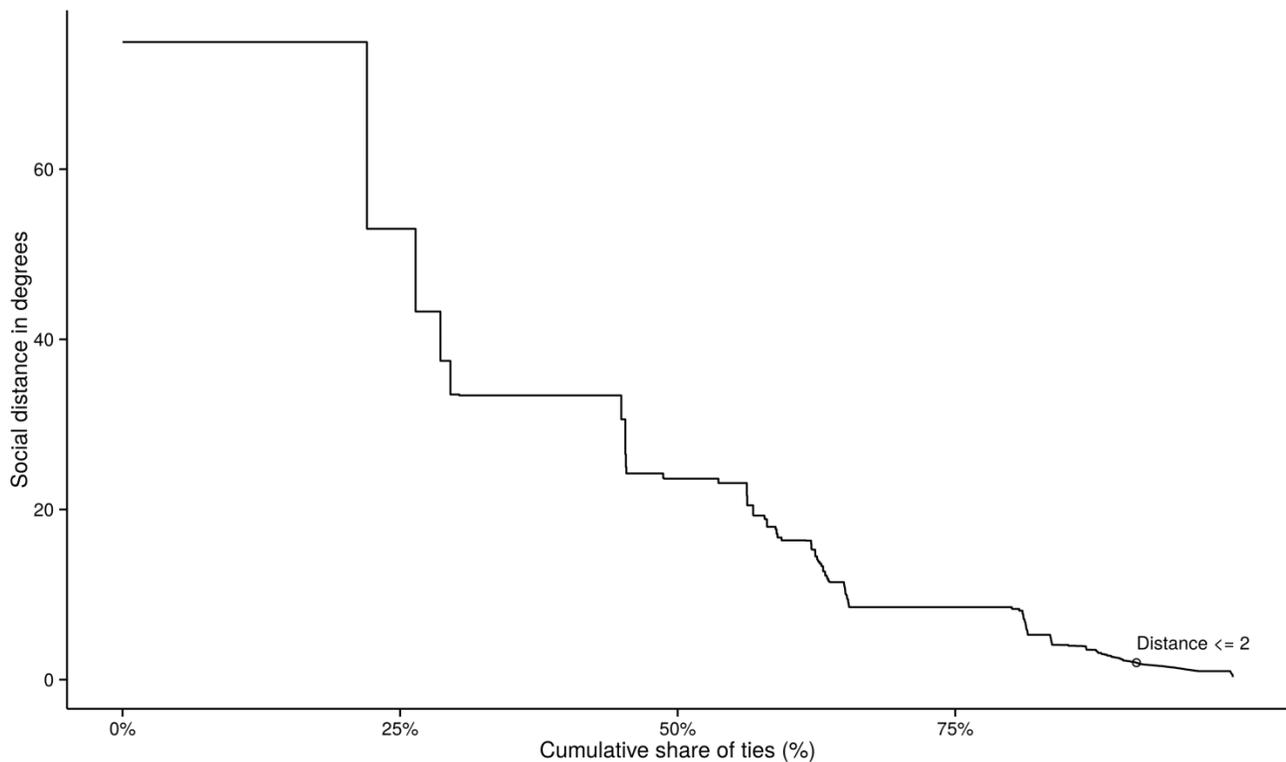
Social distance

In order to move beyond the weaknesses in the approach of Article 3, we moved from social proximity to social distance, in a social network sense. The power elite is identified with the use of k-core decomposition (Seidman 1983) on a weighted affiliation network (Doreian and Woodard 1994). The weighting procedure emulates social integration, where all ties made by an affiliation are weighted according to its size. (For the details of the weighting procedure, see Article 6.) The weighting procedure is necessary because otherwise, large affiliations would dominate the network and they could therefore not be included. Specifically, affiliations with more than 14 members are weighted to make weaker ties between their members than smaller affiliations.

This measure of social integration, which varies from 0.01 to 3.3, is inverted into social distance measured in degrees. The social distances then range from 0.3 for the closest connection to 75 for the weakest connection. The head of The Danish Confederation of Trade Unions (LO), Harald Børsting, and head of The Danish Metalworkers' Union (Dansk Metal), Thorkild Engell Jensen, have a very strong connection because they share 12 memberships. Their social distance is 0.3, which means they are almost identical. Any person can reach Harald Børsting in one step through Thorkild Jensen if they have a weight to Thorkild Jensen of 0.7. This can be thought of as a friendship. People with distances below 1 are so tightly knit that knowing one part of the friendship means also knowing the other. This is related to the well-known 'forbidden triangle': if A has a strong connection to both B and C, then B and C necessarily have at least a weak connection (Granovetter 1973).

The weakest connection or the furthest distance, on the other hand, is between two individuals who are only connected by having attended a part of a royal ball with 2,184 guests. They are so far apart that it would be easier to go through 75 people with non-weighted contacts to reach them. In social network terms, 75 is a massive distance (Grannis 2010), but this distance is still present and obviously a lot smaller than infinite. They are still part of the same social world, whereas those who have no memberships are not. It is unlikely, though, that any individual could have a distance of 74 degrees, considering that most people allegedly are connected within 6 degrees (cf. Milgram 1967; Watts and Strogatz 1998).

FIGURE 2: EDGE WEIGHTS (SOCIAL DISTANCES) IN ENTIRE ELITE NETWORK



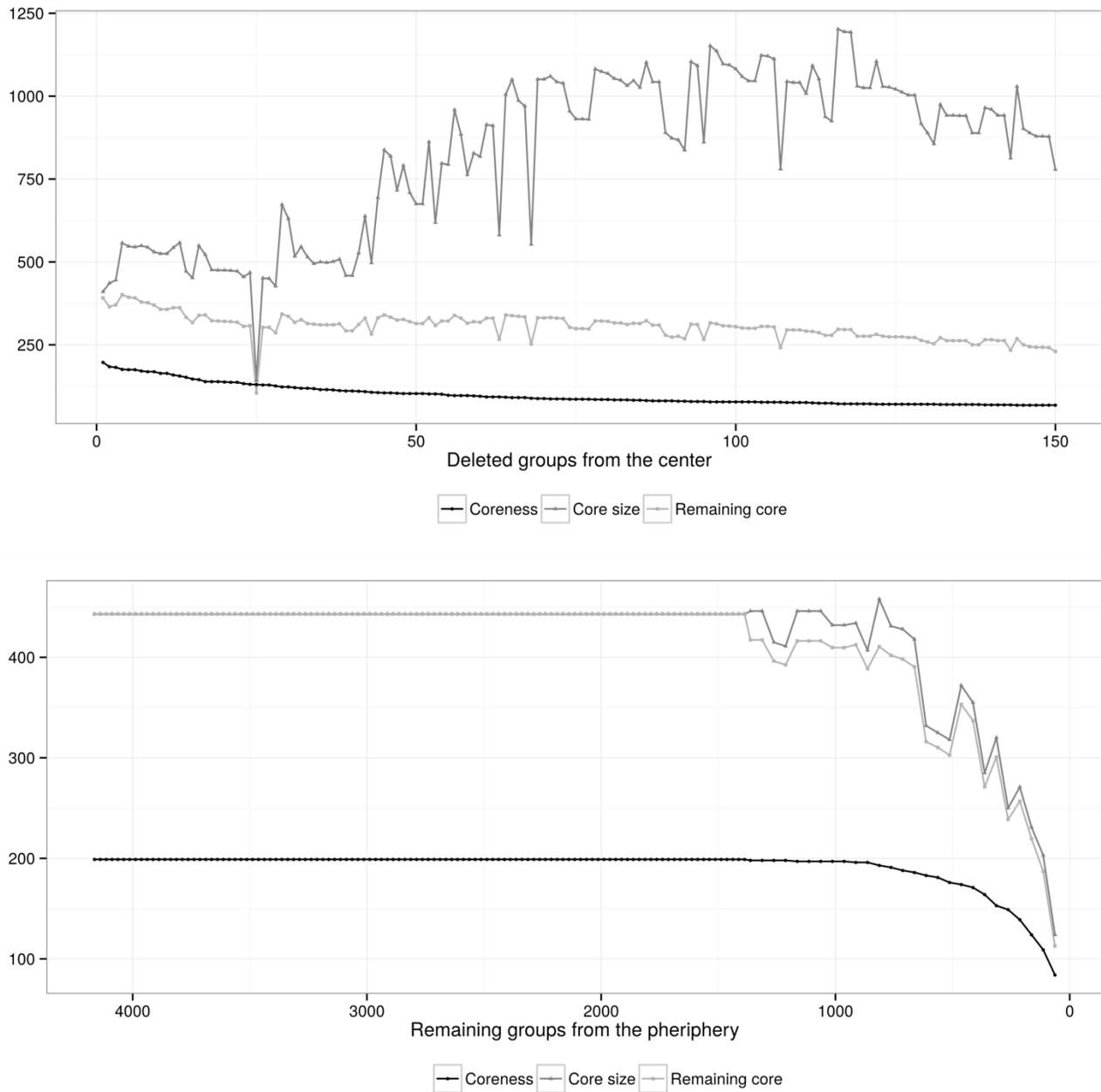
The necessity of the weighting procedure is illustrated very clearly in Figure 2, where the vast majority (91%) of the 3,500,000 ties between the 37,750 individuals are more than 2 in social distance. This means that the majority of the ties come from the relatively few large affiliations. If these ties were not dramatically weighted down, the density of the network would rise and the core of the network would be the largest affiliations. Instead, the role of the large affiliations and the many large distances is that they may move a relation on the fringe just a tiny bit closer. Because a distance between two individuals can be less than 1, the large affiliations may also bring two already connected individuals closer and thereby also connect their neighbourhoods better.

The social distance weighting of network ties has some peculiar consequences. Consider persons A, B and C. If the connection between A and B has a weight of more than 2 and they both have a connection of 1 to C, then it is easier for A and B to reach each other through C than by talking directly to each other in the relatively large affiliation of 60 members of which they are members. It may seem contra-intuitive that someone like A and B, who has a social distance of only 3 in their direct connection is better connected through someone else, C. To account for this we produce an adjacency matrix ranging from 0 to 1. The weighting, 1, denotes a relationship where the shortest path between the two individuals is 2.1 or less. In

the example of A, B and C they are all connected because they can all reach each other in two or fewer steps. This adjacency matrix is used as the basis for k-core decomposition and as a result, the distances that the algorithm uses for the core identification are discrete and not continuous. This transformation from continuous to discrete distances is a requirement of k-core decomposition, but a revision of the method, k-shell decomposition (Miorandi and De Pellegrini 2010), is compatible with continuous distances.

When the adjacency matrix based on reach values is calculated, the k-core decomposition becomes very resilient to the inclusion of massive amounts of data. If more data are included, the peripheral individuals will be excluded quickly and will affect only the minimum degree, not the composition of the core. This is evident in Figure 3, where the exclusion of a substantial amount of affiliations has no effect on the solution. It is only when around 3,000 affiliations have been deleted that there are serious changes to the composition of the core. Interestingly, this tells us that there are approximately 1,000 affiliations connecting the core.

FIGURE 3: MEASURES OF CORE STABILITY WHEN DELETING THE MOST CENTRAL GROUPS AND WHEN DELETING GROUPS FROM THE PERIPHERY, FROM ARTICLE 6



The k-core decomposition has many characteristics that are well-suited for elite studies. Most importantly, unlike hierarchical clustering, it has a natural cut point and it identifies a single cohesive group with a clear criteria for inclusion. The minimum degree, which is the smallest amount of degrees within the remaining core, can be interpreted directly. In Article 6, the minimum degree is 199, which means that the least integrated individual in the core is able to reach 199 of the remaining core within 2.1 steps. The number of

individuals, their character and the minimum degree can all be compared across studies or across sectors.

Even if one could argue about the weighting scheme that is applied, the elite identification procedure proposed in Article 6 has the strength of reproducibility. If another weight is deemed to be better, the analysis can easily be adjusted and rerun with the new weight. This is very different from the positional method, where it may be very difficult to alter the inclusion principles after the fact. This may place researchers in a dilemma where they have to choose between using an obsolete inclusion criteria and not being able to compare their results with former research. This problem grows considerably when there are no names attached to the data, as in the Danish (Christiansen et al. 2001) and Norwegian (Gulbrandsen et al. 2002) power studies. Naming the elite was a clear priority in the development of the methodology proposed in Article 6: The methodology of identifying power elites. It was important that the results could be used in comparative studies, because comparing different sizes and compositions of elites is potentially a very rich source of knowledge. By comparing different countries and time periods we may be able to develop theoretical frameworks that may describe the general characteristics of elites in a detailed manner.

This indicates some of the strengths of the inclusion principle, described in Articles 5 and 6. When the researcher has more than enough data, the problem is sorting out what is relevant instead of what is missing. This way of thinking about datasets, which is familiar to researchers working with big data and registers, makes it comparative research more plausible and lessens the influence of the researcher's theoretical assumptions, as argued in Article 6.

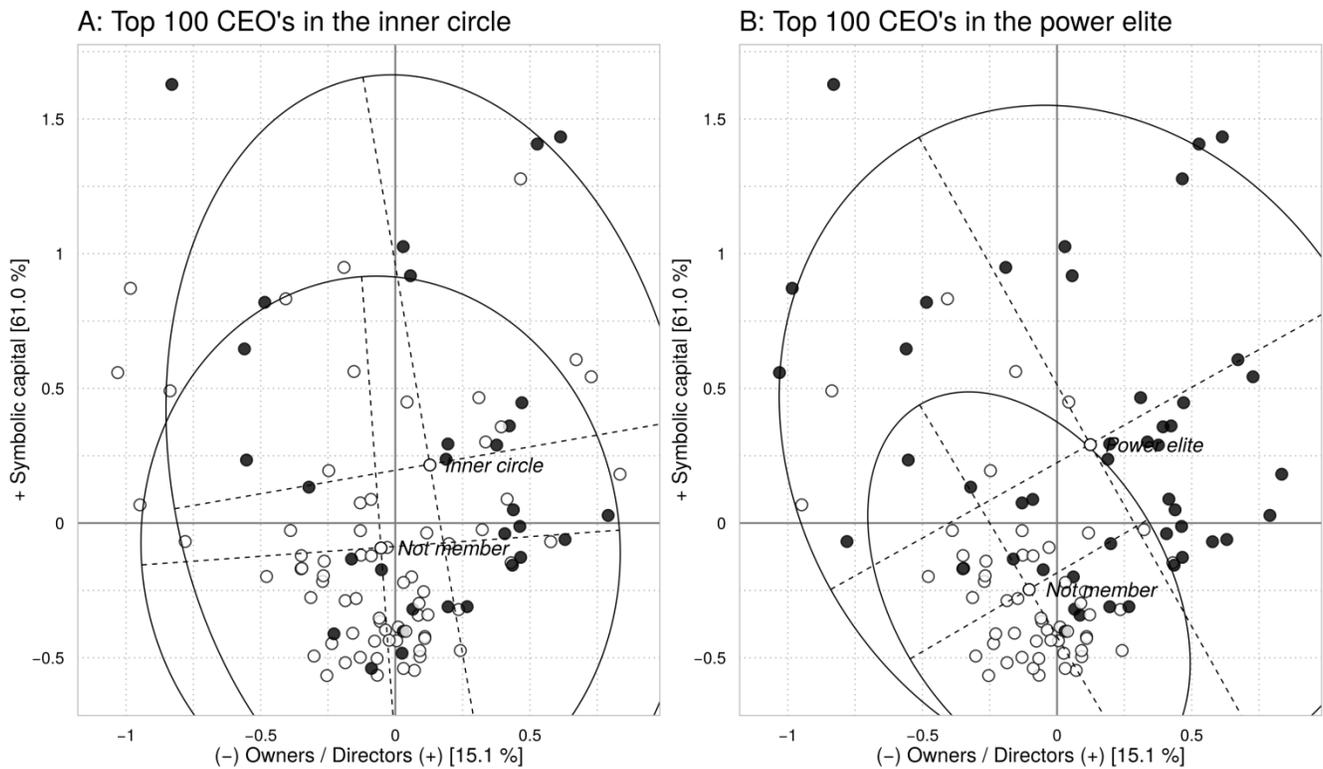
Comparing results: The inner circle and the power elite

But different methods may find the same results, so how do these two methods compare? If we look at the intersection between the power elite and the inner circle we see that, of the 171 inner-circle members, 92 (54%) are also members of the power elite, with its 423 members. Of the 184 members of the power elite with a primary affiliation in business, there are 78 (42%) inner circle members. This difference in population between the two methods is considerable. Although the two groups are close in network terms, the boundaries are different. Distance is central to the explanation of the differences between the two methods. The inner-circle approach is unable to include affiliations with a large variation in size and is not able to handle weighted ties. As a result, the inner-circle method does not include affiliations other than corporate boards, which are only a small part of the network that combines the business community. But the inner-circle analysis has the great strength of using similar ties and a data source that is easily available across countries and time periods, as databases with interlocking directorates are easily accessible.

It could also be argued that the differences between the methods in part also reflect an empirical phenomenon. It might not be the case that the most central individuals within a sectoral network are always included in the power elite, nor is it certain that all of those who are part of the power elite from a given sector are central within that sector. In Bourdieusian terms, we could argue that some individuals have more capital in the field of power than they have in their own respective fields and are therefore also more active in the field of power. Furthermore, the aim of Article 3 on the inner circle is to investigate the relationship between centrality in the corporate network and membership in networks in other sectors. If these sectors were included in the definition of the inner circle, we would have investigated a tautology.

Both of these groups, the power elite and the inner circle are constructed from networks, but how do they compare to a positional approach? Article 2, uses a positional sample of top CEOs, by comparing the overlap between these three groups it is possible to discern more of the differences between the methods. In Article 2 it is proposed that the first dimension in the MCA, also presented in Figure 1, is the symbolic capital in the field of power for the 100 top CEOs. We should therefore expect that this dimension should correlate with power elite integration and integration in the inner circle. The higher the symbolic capital, the more likely it should be that the director is integrated in the power elite.

FIGURE 4. CORRELATION BETWEEN SYMBOLIC CAPITAL AND ELITE INCLUSION



In Figure 4, plot A shows the directors who are members of the inner circle and the plot B, are the members of the power elite, painted in black. Of the top 100 CEOs, 30 are members of the inner circle and 46 are power elite members. It is important to note that the directors' dataset was collected for 2008 and the Danish Elite Network, which is the basis for both the inner circle and the power elite from about 2013. During this period, some of the prominent owners and CEOs died or resigned and are naturally no longer part of the power elite. In fact, of all seven managers having a position above 0 on the dimension of symbolic capital, who are not in the power elite, only one is still active. With these reservations in mind, there are clear correlations between the status dimension and both inner circle and power elite membership. The cloud of non-power elite members is more concentrated and slightly lower than that of the inner circle non-members. This indicates that the correlations between the dimensions in the MCA and power elite memberships are somewhat stronger, and that the inner circle is slightly better represented among directors than among owners.

Although there are small differences, the social characteristics of the three samples are very similar. Social background, residence, gender, age and education are very similar across all three populations. This is not surprising, given the large overlap between samples, but also indicates that these characteristics do not vary greatly with network inclusion, a point which is underlined by the low correlations found between the dimensions presented in Article 1 and inclusion in either the inner circle or the power elite. When looking at the social character of the elite the question of whether using a positional approach or a network sampling approach seems to be of lesser importance, but this might apply only to very exclusive samples like the top 100 CEOs.

The differences between the three methods and samples are substantial, but most important are perhaps the differences in comparability between the three methods. The selection of the top 100 CEOs is easily comparable to similar populations in other countries. The inner circle is much harder to compare to other similar studies as its identification relies on relatively arbitrary decisions. The method for identifying the power elite is designed to be more reproducible and comparable than the inner circle approach, but the goals of the inner-circle article are difficult to achieve via other methods. The power elite approach seems to require a fairly dense core, and when affiliations other than the corporate boards are excluded, the density in the core drops dramatically. This makes the k-core decomposition less precise. The non-corporate networks could not be included in the inner circle detection because they would reduce the analysis to a tautology.

Chapter 2: Data and Craftsmanship

In this chapter we will look into the sources of data that the elite sociologist can use to create his or her dataset. In order to get the most out of these very diverse data sources the sociologist should not lean on strict methodological rules, but instead, reflexively evaluate each entry and how it fits into the large dataset. Rules and rigour are important because they protect against intellectual laziness and sloppiness, but rules should be easy to follow and be bendable when appropriate. In this view, the good sociologist is a flexible craftsman who does not follow methodological recipes blindly, even if he hopes to create analyses that are comparable to the works of others. A rule that might work in one setting is catastrophic in another, and the challenge is to see when comparability is saved by deviating from the rules. The selection of top corporations for studies of the corporate elite is a good example. If you take the top 100 corporations from the raw list of corporations ranked by turnover, you will find corporations that trade in bunker oil and currency speculation. These corporations have massive turnovers but fewer than 20 employees, and their headquarters could be a small house in the countryside. They are not part of the corporate elite in the theoretical or common use of the word, and therefore they should be excluded. This example is simple and straightforward, but this is not always the case. The researcher should adjust the guiding rules and produce new ones that fit the nature of the data. But assembling data requires technical skills and tools that let the researcher clean, test and explore the data, while also letting others reproduce results. The techniques and legal framework around the data collection should therefore also be flexible and inclusive.

The reward for this flexibility is wealthy datasets full of descriptive data that can be assembled into rich stories, but which may be less suited for tests of strong claims in the form of a hypothesis. In the following section, we will look at the strength and weaknesses of the different data sources and the technologies and legal framework used in this project.

Data sources and elite research

It is well known that the nationally representative survey is unsuited for studies of small elites (Savage and Williams 2008:6). Some studies have successfully used surveys for the study of small elites (Pappi 1984), though the general trend of falling survey response is a real threat for such studies (Ruostetsaari 2013:264). There is some evidence that higher ranked elite individuals are less inclined to participate in surveys (Hoffmann-Lange 1987, 2006). The low response rate could be linked to considerable time constraints on the part of the informants, who are reluctant to waste their time, but researchers also report that high-

profile informants are difficult to access, and that secretaries and personal assistants are considerable barriers for the researcher. The classical interview, within an elite context, is also under attack (Jerolmack and Khan 2014)

When studying elites, data sources that do not rely on interviewee collaboration therefore have a considerable appeal. It is not surprising, then, that the study of collective biographies - the prosopographic tradition (Broady 2002) - is strong within elite studies. Some of, if not the most iconic elite studies, use biographical data on a collective set of agents (Bourdieu 1996; Mills 1945; Mills and Atkinson 1945). Although these studies are based on relatively small groups, considerable effort was needed to collect these data in a time before searchable databases. Thankfully, there has been an enormous jump in efficiency of the method of data collection. But the price for not surveying the elite is of course that important questions about attitudes are practically inaccessible.

The prosopographic method is particularly well-suited to elite studies, as biographies often include some of the most central variables of elite studies. For the study of elite circulation, we often look for data on social background, birthplace, sectoral affiliation and a short description of careers. Biographic data also often contain a selection of affiliations, but these lists of affiliations are almost never complete. The number of positions that the most prominent elite individuals hold and have held is often too long to be included in biographical registers like *Who's Who*. The prosopographic method does not rely on a single source of data, such as a biographical register, but is pieced together from a variety of sources, most importantly portrait articles. The datasets are combined by different hooks, such as the name, workplace, email, address or family. All of these things can be used to trace the same individual across databases, articles and so on.

Recently such services such as Facebook, Twitter, LinkedIn and Instagram have become a valuable source of information for the researcher (Savage and Burrows 2007). In this dissertation they have only been used on an individual level, but there are application programming interfaces (APIs), back-ends that let the researcher access parts of the data in these services. These APIs opens up for exciting new ways of studying the elite. Twitter, Instagram and GoogleMaps let the user extract data on the basis of geographical coordinates. In Article 7, the researchers identify the coordinates of the primary residence of the power elite. Through the Twitter API it is possible to collect all the tweets that come from a very restricted area of less than 1 km², like some of the areas in the upscale suburbs north of Copenhagen, where power elite density is highest. Such a collection of tweets could, along with other data sources, be useful for cultural studies of the elites, even if only a fraction of them are from power elite members.

For the articles presented in this thesis we have used a variety of data sources. They will shortly be presented in the following sections, with some very brief reflections on strength and weaknesses. This summary will serve as the basis for a reflection on the more general character of data in the digital age.

Prosopographical data

The primary source of biographical data used in the articles has been the register *Kraks Blå Bog*, which is the Danish equivalent of *Who's Who*. This register holds approximately 20,000 self-reported biographies. Updated yearly, the register has existed since 1910. The current edition holds 8,127 biographies. It is an excellent source of information on social background¹, marital status, residence, education, career, authorship and even email addresses. The main problem with this data source is of course that it does not include its members on the basis of the same criteria as the researcher. As a result, it is much more likely to find data on those who are more prominent in a general sense, even if the publisher claims that mention is based entirely on merit. Furthermore, because data are self-reported it is vulnerable to the perhaps particularly Scandinavian problem of 'false modesty'. For instance, the well-known heir of a billionaire has stated that his father was an engineer, which is technically correct, but obscures the fact that the engineer was also the founder and head of a large corporation. In a Danish setting, a privileged social background could be deemed sensitive information, and they are often under-reported in sources like *Who's Who* (Priest 1982).

For the study of the business elite in Articles 1 and 2, we have used the private database **Greens Erhvervsinformation**, which kindly donated access. This database is very extensive, with 650,000 individuals. Greens include educational profiles for some individuals within the business community and the annual reports of most Danish corporations. From these reports we gathered information on turnover, number of employees, exports, remuneration of the board of directors and top management, and several other variables. Annual reports are a very valuable source of information on the business elite, but they are difficult to read and most sociologists are not trained in the implications of different accounting practices. This is most evident when assessing the fortune and profits of large holding corporations. An interesting finding is the variation in the quality of the annual reports. Publicly traded corporations present well-designed, high quality publications, whereas other corporations provide only that which is legally required.

We thank the editors of *Kraks Blå Bog* for kindly donating data and giving us insights into their editorial process and data collection.

This says a lot about the role of the corporation and its conception of control (Fligstein 1996b).

The **Central Business Register (CVR)** register, which is administered by the Ministry of Commerce, contains information on the number of Danish subsidiaries, company age, sector and most importantly, the officially registered address of all corporations and the home address of their CEOs and board members. This is naturally a valuable resource as the addresses are updated and it allows the researcher to find the directors in other databases such as The Public Information Server (OIS). The OIS database has information on every address in Denmark. From this we are able to gather information on whether the address is a house, an apartment, a farm or a manor, as well as the name of the owner, the price, its development, any debts, the size in square meters, the number of bathrooms and even if the house has a history of problems with water in the basement. From the official documents on ownership, it is often possible to discern the name of the spouse of the researched individual. But because it is only possible to search by address and not by name, it is impossible to find all the houses, land and summerhouses that one individual might own. Some prominent industrialists are known for collecting large estates, and a considerable number of the haute bourgeoisie have summer houses in the same few select areas. These aspects of the housing practices of the elite are not available from this source, and are not available in Denmark.

The **infomedia.dk** database contains most printed articles from all major newspapers and magazines in a searchable format. From this the researcher can collect biographies and interviews, but the number of articles about a person or an organisation is an interesting variable in itself. Information is also provided about the composition of that number. A corporation may have a strong regional presence, but not a national one. Likewise, some corporations have a strong presence in the business press but not in the national press. These are of course very crude measures of the extent and strength of a reputation, but as Rose and Thomsen (Rose and Thomsen 2004) showed, reputation can be fairly one-dimensional, at least within the corporate community. Another measure of reputation, but also of academic merits, is the number of publications about or authored by a person. **Bibliotek.dk** registers the national bibliography, which catalogues all written works in Danish or written by Danish authors. All works are tagged by subject, which means that biographies are easy to identify. In the Danish context it is fairly rare for a whole book dedicated to a single elite individual. Some prominent elite members have had several books written about them, whereas others feel compelled to fund and distribute autobiographies (Larsen, 2004). This measure of reputation can be applied to corporations as well. Most publications about corporations are dissertations from business and management schools, which means that the number of books about a

corporation is mostly an indicator of the prominence and reputation a corporation has among young business professionals.

TABLE 1: AFFILIATION NETWORKS INCLUDED (FROM ARTICLE 5)

	From original sources	Excluded*	Added in snowball sample†	Final no. affiliation networks	No. relations
State ¹	2,328	1,780	327	875	10,230
Parliament ¹	153	101	31	83	970
NGO ¹	749	144	922	1,527	16,436
Corporations ²	1,136	34	40	1,142	7,476
Foundations ²	1,380	18	83	1,445	8,181
VL-Networks ³	117	3	0	114	3,845
Commissions ⁴	116	44	0	72	1,121
Events ⁵	74	0	0	74	14,582
Total	6,053	2,124	1403	5,332	62,841

¹ Source: Danish Public Administration Database (www.foa.dk)

² Source: The list of largest corporations according to turnover and list of all foundations in the Danish Central Business Register (obtained through www.biq.dk)

³ Source: Homepage of VL-networks (www.vl.dk)

⁴ Source: Registration of political commissions from November 2005 made by Danish weekly newsletter *A4*.

⁵ Sources: Webpage of Danish Royal Family (www.kongehuset.dk) and private archive of journalist.

*Affiliation networks were excluded if there was no board with extra-organisational members, no information available on the board either online or through personal contact, the board was included from other sources as well, or the board overlapped entirely with another board within the same organisation.

†This includes both sub-committees within the organisations on the original list and the 142 networks obtained through snowballing the affiliations of prominent agents.

Network data

The elite network dataset is based on all of the sources above, except Greens. Data on the corporate and foundation networks were generously donated by **biq.dk**, and originates from the official register, CVR. These data contain all foundation boards and all top 1,000 corporate boards. This gave us 2,587 affiliations, with 13,008 individuals and 15,657 positions. But it is extremely important to thoroughly check all affiliations for their uniqueness. Many corporations are organised in a holding structure and this structure poses a massive problem for the elite researcher. Some corporate holding structures are organised like a system of Russian babushka dolls with subsidiaries embedded in parent companies, and it requires careful consideration to determine which position in the holding structure is the most influential or just influential. One solution is to take the topmost position in a holding structure, but this is prone to serious error, as family-owned corporations in particular frequently have a charitable or passive foundation as the owning legal entity, with the most prominent family members having direct control of the ‘key’ corporation board.

Furthermore, some subsidiaries may be quite autonomous or owned by several parent corporations. This is also the case when an organisation has several boards for legal reasons, but the boards have very similar membership composition.

If you include all levels of a holding structure the network becomes very cohesive around certain holding corporations, but the many levels in the holding structure may never hold individual board meetings and therefore do not reflect interorganisational ties. Including too many ties between any number of individuals could be a problem, because errors in centrality are contagious (Wang et al. 2012). To test for the uniqueness of a board affiliation we visited the websites of all corporation boards that had an overlap of 80 per cent or more of their members with any other board. The problem of identifying the right corporation within a holding structure is not only a problem for network analysis, but also for prosopographic studies. There are clear differences in the social profile between active and relatively young CEOs close to the productive corporations, and the foundation or holding managers, who are often retired or withdrawn notables with long corporate careers.

This problem may seem trivial, but the time consumed by this problem does not scale well and indicates that extracting from large databases is a lot of work. This was possible for the 2,500 affiliations we collected, but not for the 1,034,066 affiliations that it is possible to extract from these databases.

The primary source of affiliations from the non-corporate world is the now closed public administration database, Common public adresse archive (**FOA**) (www.foa.dk). This was a state-administrated database of entities, addresses and individuals in the entire public sector. All entities were organised hierarchically and organised according to their ministry. For example, all public schools are part of the Ministry of Education. The quality of the database varies and many entities contain only the name and position within the hierarchy and not the employees or elected officials. The database could therefore only serve as an initial list of organisations and state entities from which we could perform small snowball samples of affiliations. In Table 1 we see that we extracted 2,328 state organisations and then excluded 1,780 organisations, as they did not connect externally through a board, commission or similar affiliations. The many small snowball samples performed by visiting public websites gave us 327 affiliations not present in the FOA register. The FOA also contains a full list of NGOs with a hearing right or a right to representation in public commissions. You could assume from these lists that it is easy to discern whether or not an affiliation is controlled or funded by the state, but that is far from easy as the boundaries of the state are more than fuzzy. The only NGO whose director is represented in the power elite is the Consumer Council. This entity is partially funded by the state, but runs a private laboratory and gains a large portion

of its funds from members. Other entities are not funded by the state directly but borrow money very cheaply from the state, under strict regulation. Examples are public housing projects and museums. This raises the question whether or not state-subsidised corporations should also count as parts of the state, but in the Danish context that would basically account for the entire economy.

The datasets used in this dissertation have all been constructed from these diverse sources and this raises the classical questions about validity and reliability. When data are collected for purposes other than research, which is the case for most of the sources mentioned, it is not without its pitfalls. These challenges require a reflexive and pragmatic approach to the assembly and construction of data on the elite.

Limitations of data

The possibilities of large registries and databases within elite studies are reduced substantially by the high need for data quality and similarity in both SNA and MCA. When looking at boards it is essential to include mainly boards with the power to make decisions and not boards of holding corporations that are of a completely different nature – often existing only for legal reasons. Some prominent lawyers have created and are present on hundreds of corporation boards, but these corporations are empty shells and some exist primarily for tax evasion or other legal purposes. This network of shell corporations would easily become the densest part of any corporate network (for an example of the size of the network see Schøtt, 2003) and could distort any descriptive or model-based approach. A network of shell corporations is an interesting network in itself, but it does not correspond well with the networks integrating the elite.

These considerations and others presented above indicate that the promises of big data may be hard to fully realise within elite studies and that there is a danger in including and using large datasets without knowing a large proportion of the data points. The sociological methods used in the articles presented here are not suited for the diversity that is present in the raw and undigested data. Perhaps elite sociology is best suited for using inclusive but researcher-validated data drawn from ‘data of the middle range’.

Reproducible research and the public

To ensure the quality and influence of quantitative sociological research it is important to make the research reproducible (Freese 2007). The researchers should strive to make all relevant parts of their research process open, from data to code, analysis and result, and to the final works (Stodden 2009). When

the research is open and available it is possible for the scientific community to test and improve on existing research. For elite research the reproducibility is also a way of engaging the general public. Datasets and analytical results, such as rankings and groupings, can be used by journalists and bloggers.

But there are barriers within the scientific community. Unlike among economists, there is not, a strong tradition among quantitative sociologists for sharing data and code (Freese 2007). Sociologists may have very diverse reasons for not sharing data, and the ‘publish or perish’ imperative could give the researcher an incentive to keep data to themselves for further publications. But this is not the only barrier within the scientific community. Unnecessarily restrictive norms on the publication of names is a very real barrier for replicable science in studies of small elites.

Open data and code

The articles included in this thesis all attempt to adhere to the framework of reproducible research. This means that data, software and code are documented and available to the research community under a free license (Stallman and others 1991). All datasets used in this dissertation are kindly donated by the University of Copenhagen to the scientific community and the general public under the open GNU General Public License. This license lets others freely use these data, but requires that all derived versions are provided under a compatible license. This requirement makes it very transparent that no one can control access to the data, making it a fruitful platform for collaboration with private firms, between researchers and between researchers and students.

The code that is used for the analysis should also be distributed along with the data, but this requires that the code is also under a free license. It could therefore be argued, as Freese (2007) does, that researchers should minimise the use of point-and-click software and instead use scripted languages. Going further, it is preferable for the code to be made available under a free license where the analytical algorithms are transparent and changeable instead of under proprietary licenses, which makes it difficult to check the quality of results. If the analysis is made with software with expensive licenses it may dampen the enthusiasm of both students and other researchers.

For both SNA and MCA there are very good software implementations. Many of the recent developments within MCA, such as specific and class-specific MCA, can be found in high quality R packages, such as: FactoMineR (Lê et al. 2008), anacor (De Leeuw and Mair 2007), ca (Greenacre and Nenadic 2007), and GDAtools. R also provides high quality packages for SNA, most notably: Igraph (Csardi and Nepusz 2006)

and STATNET (Handcock et al. 2008). The most prominent packages in R for MCA are not directed at social scientists but at the much larger audiences of market research, botanics, medicine and others that also make use of MCA. We wrote the `soc.ca` package (Larsen, Andrade, and Ellersgaard 2012) in collaboration with our colleague Stefan Bastholm Andrade who implemented class-specific analysis (Le Roux and Rouanet 2010), which was applied by Ellersgaard (2014) in an analysis of the political subfield of the field of power in Denmark. The package improves existing software by aiming it directly at the social sciences and by implementing the very flexible plotting framework `ggplot2` (Wickham 2009). It is hoped this package will expand the use of MCA within a reproducible framework among sociologists with less of a tech-fetish.

The documentation and presentation of the 'Danish Elite Network' dataset is presented in Article 5 and made available in the '`soc.elite`' package, along with the analysis and additional datasets for Articles 3, 4, 6 and 7. The correspondence analysis presented in Articles 1 and 2 are, with their data, available in the `soc.ca` package (Larsen et al. 2012). When the code and data are stored in an R-package (Venables et al. 2002), they are distributed in a very strict format that is readily accessible for the trained researcher. The `soc.elite` package is available via github at github.com/antongrau/soc.report and the `soc.ca` package is available through the R repository, CRAN (Hornik 2012).

Anonymity

If the elite researcher is to get the full potential from diverse data sources and open the results up for the scrutiny of others, it is necessary to dispose of the idea of anonymity. This may run contrary to ethical standards, for example, of the American Sociological Association:

- (a) When research requires maintaining personal identifiers in data bases or systems of records, sociologists delete such identifiers before the information is made publicly available.
- (b) When confidential information concerning research participants, clients, or other recipients of service is entered into databases or systems of records available to persons without the prior consent of the relevant parties, sociologists protect anonymity by not including personal identifiers or by employing other techniques that mask or control disclosure of individual identities.
- (c) When deletion of personal identifiers is not feasible, sociologists take reasonable steps to determine that appropriate consent of personally-identifiable individuals has been obtained before they transfer such data to others or review such data collected by others.

(American Sociological Association 1999)

The American Sociological Association (ASA) recommends that names are deleted before publication and that the researcher obtains consent from the persons who are identifiable in the data. Although often important for qualitative researchers, for the elite sociologist they are a barrier to validation and critique.

For data collection, if the different registers, and websites etc. are to be linked, each datum point has to be named. The middle ground, where the original researcher knows the names but the published data are anonymous, also has serious limitations. It prohibits other researchers from really assessing the quality of the data and questioning the methodological choices. If you cannot see the exact principles for inclusion and reproduce them, any result becomes impossible to evaluate. This is of particular importance for an SNA analysis. If names were excluded, other researchers and agents within the field would have no way of knowing whether the clustering algorithms produced sensible results.

What might seem to be protection of the researched individuals could easily become problematic because the individuals in the dataset are not able to find themselves and correct errors in the data. If they can identify themselves in the results the researched individuals might also object to the researcher's classifications. As a protection, anonymity is weak as elite individuals are almost always easily identifiable for those who put themselves up to the task. If you have just a small set of former career positions, an area of residence, age and education, then it should be possible to identify almost any elite individual. It is impossible to publish data and the results of analysis of an affiliation network in a way that can be evaluated without compromising anonymity. There are very few interlockers. If you know the names of two affiliations, then it is possible to obtain the names of all interlockers.

It seems that anonymity does more to guard the researcher from criticism and oversight than to protect the researched individuals from data-related abuses. As a last note on the subject, when names are hidden, the public at large are alienated from the results, which lose their direct appeal. If social scientists are to extend and enrich the general understanding of how the elite act and think, then faces, names and multifaceted data are of key importance. Within the Bourdieusian tradition of MCA (see e.g. Bourdieu, 2005, 1996, 1988; Bühlmann et al., 2012; Denord et al., 2011; Lebaron, 2003) and SNA, for instance, of corporate interlocks (see e.g. Domhoff, 1978, 1975, 1974; Heemskerk, 2013; Mintz, 1975), the use of names to validate and enhance the interpretation of the data is commonplace. Adding to this, only publicly available information is used to construct the datasets.

Open elite sociology

It seems that elite sociology differs from many other strands of sociology by having very particular requirements. Normally it does not really matter if you get the entire population or not, and in youth studies one young person is as good as another. But in studies of the elite, some people cannot be omitted.

As well, most sociologists routinely delete the names of the people they study. Names are irrelevant and a danger to those studied. But for the elite sociologist the reverse is true. Secrecy is problematic and the research can be evaluated by others only when names are in the open. Usually, researchers rely on a few data sources and thereby expose themselves to fewer forms of measurement errors and confusion. Again, the elite sociologist has different needs and methods. The elite sociologist collects data from very diverse sources and often with very little knowledge about how this information was produced. Web searches are a very important part of elite research, especially the collection of affiliation memberships from affiliation websites. But has the website been updated? Are the members listed in full? Are their descriptions accurate? All of these questions could be answered easily via email, but when the number of affiliations rise, email becomes impracticable.

If we are to allow this kind of data assemblage we need to play with open cards. The data in all their detail, and the code used for constructing and analysing the data should be easily available. In this way the scientific community can evaluate the qualities of the research. This requires an open and reproducible framework. In sum, there is a need for an open and flexible sociologist to study the closed elites.

Chapter 3: So What?

Any social science worth its salt is able to answer the question: So what? Like the tired refrain of a teenager, the shrugged shoulders of colleagues and audience inevitably confront the elite sociologist. The question is at the same time, ‘Why should I care?’ and ‘What can we do about it?’ The sociologist should answer both of the dimensions inherent in the ‘So what?’ question. In the previous chapter I have tried to answer parts of the question of why you should care about studies of the elite. Elite struggles shape the world for better and worse, and the same goes for elite perceptions of society. These struggles are also important in peaceful times, when there is no politics of necessity. How the elite tackle challenges and national problems can always go in many directions. The composition and character of the elite influences how these problems are dealt with. Why should anyone care about the cohesion and class consciousness of the elites in the articles presented in this dissertation? Or that their 1% share of the total income is growing (Piketty 2014), that social mobility to top income positions has diminished (Hansen 2014), or that half of the French CEOs come from just three university programs (Hartmann 2010)? If the elite are recruited predominantly from technocratic educations such as economics and business schools, we may expect solutions that fit within a neoliberal economics framework. If the unions are an integral part of the elite, we may expect solutions that focus on changing labour market regulations. While this may answer why we should care, it still leaves open the question of what is to be done about it. It is generally not the role of the social scientist to formulate policy in full, but it is fruitful to hint at openings for reform.

Elite reform?

Critique has a tendency to evolve into resigned apathy and elite sociology has to be very aware of this possibility. By only criticising and not showing alternatives, critical sociologists may have wasted their efforts and in turn strengthened what they criticise. The demobilised public look at the towering elite and say, ‘There Is No Alternative’. The role of the sociologist is to point out that there is substantial historical and national variation in elite organisation and to establish that elite organisation, elite power and elite privileges are an area of politics. Elite politics and elite control were a crucial part of the birth of the democratic society. Positions within the state bureaucracy became no longer something to be bought, sold or inherited, but to be distributed imperfectly according to skills and merit, and to some extent, according to an ethos of delivering results for the benefit of the general public (Bourdieu 1996). Across society, the role of inherited privileges was re-arranged, although not abolished. Seen in this light, elite reform is a part of the modernisation process and the politics of elite reform therefore is not confined to left-leaning social movements but firmly entrenched with republican and liberal democratic ideals (Higley 2012).

Many elite theorists believe that the rule of the few over the many is an inevitable characteristic of society. Raymond Aron (1950a) claimed that the elite were a more enduring trait of society than class. In his view Soviet Russia was classless, but the Soviet society, along with all other societies, could never be without an elite: "There is government *for* the people; there is no government *by* the people." (Aron 1950a:9). Here Aron is in line with Robert Michels (1915), who famously formulated the iron law of oligarchy. Michels found that even radical socialist political parties are governed by a tiny minority and that this is under constraints from characteristics of the large organisation that make the party leaders more sympathetic to the existing elite than to the active members of the party. In this light large organisations, like the populist political party, are inevitably on the side of a society in which an elite rules the masses. But while this may be true, there is considerable national variation in the practices of the elite. This variation indicates that, for the general public, there is a lot to be gained from imposing further restrictions on the privileges and power of the elite.

In this chapter I will briefly touch on three discussions that in the articles of this dissertation are at times quite visible and at other times less so. First discussion relates to favouritism and meritocracy and how elite studies, along with studies in social mobility, sheds light on the character of the more and often less meritocratic characteristics of society. This discussion ends in a reflection on the double standard inherent in society, in which a privileged elite enjoys the benefits of favouritism and cumulative advantage while a general population is caught up in a meritocratic competition, pitting the wage earners against each other. The second discussion is on the exclusion of women from positions of power, a discussion that is in the same vein as the discussion on meritocracy, which in essence is a discussion on discrimination against people of the lower classes. The third discussion is about the legitimacy problems that arise when elite individuals from one field circulate or interlock into top positions within other fields. Whom do they represent? These three discussions are related to results in this dissertation that are relevant to the current discussion on power, privilege, democracy and elite reform. Hopefully this answers the 'so what' question.

Favouritism: An end to hopes of the meritocratic utopia?

One of the central legitimising stories about modern liberal societies is that they are meritocratic, that those at the top are there because of a combination of skills and effort. Ironically, the term 'meritocracy' was coined by the labour politician Michael Young in a 1958 novel that portrayed a dystopian meritocratic society (Allen 2011). But the term has lost all of its original connotations and is instead a cornerstone in not just the legitimisation of liberal democracies but also the argumentation for welfare state policies. Meritocracy as an ideal is used in attacks on favouritism and nepotism across many sectors, especially in the

critique of discrimination against women. Elite sociology has several important contributions to the discussions on whether society at large is a meritocracy and whether the elite are the hardest working and most skilled individuals in society. But elite sociology should also ask if meritocracy is a viable way of distributing privilege and power.

Social stratification researchers have debated whether modern societies could be deemed meritocratic (Breen and Goldthorpe 1999; Saunders 1995). It seems a well-established phenomenon that there is a considerable transmission of privilege and resources across generations, even in relatively egalitarian countries such as Denmark. In Norway, Marianne Nordli Hansen (2014) found a considerable transmission of wealth within the families in the wealthiest one per cent of society. Whereas social mobility in relatively egalitarian countries is generally higher than in unequal societies (Corak 2013), the requirements for the richest one per cent are significantly different. Björklund and his colleagues (2010) finds that variables like education and cognitive and non-cognitive skills that generally influence income lose effect for the children of the top one per cent in the income distribution.

Most of the social stratification literature focuses on the general population, but studies on elite populations can only confirm the influence of family background. This has been covered in three of the papers included in this dissertation. In Article 1 it is shown that the top 100 CEOs in Denmark have very exclusive social backgrounds and that their profile is comparable in both the UK and France (Maclean, Harvey, and Press 2006). This exclusive social profile has barely changed since the 1950s (Hansen 1964). In a comparative study, Kaelble (1980) found a convergence along this pattern from the beginning of the industrial revolution until the 1970s in USA, Germany, the UK and France. In Article 3, we find almost the exact same social backgrounds for the 171 members of the inner circle. In Article 7, the social backgrounds of the power elite are shown to be very exclusive: 23% have parents from an upper class that forms 1% of the general population. Although the social backgrounds of all three elite populations are very exclusive, it is important to note that in the Danish context direct transmission of CEO positions within the family is rare. Bingley et al.(2011) showed that sons are far more likely to 'inherit' their father's employer if they are part of the top 1% of the income distribution. This direct transmission of positions within the father's closest network is just one of the forms of transmission of positions. Social capital can be inherited and this may be of importance to the position of elite individuals within the field of power (Denord, Hjellbrekke, et al. 2011; Hjellbrekke et al. 2007).

The transmission of elite positions within the family is the strongest form of favouritism and it is not the norm for recruitment to elite positions in modern society. But the relative importance of inheritance is an

indicator of how open the elite is. According to Mosca (1939:417–19), elites fluctuate between periods of instability, with strong inflows of new families from lower strata and periods of stability where recruitment becomes ever more closed. This model finds support in the works of Padgett and Ansell (1993:1261). In this tradition the openness of an elite group is a function of the diversity of the social characteristics that are allowed positions within it. Part of the distance between the general population and the elite is then reflected in the diversity within the elite and thereby its openness. But even if the elite are closed and social background is of great importance, can it then be argued that the elite are not the most qualified for their jobs? This question is very difficult to answer, especially when we consider that the qualifications for elite positions are a moving target. In the words of C. W. Mills:

The fit survive, and fitness means, not formal competence – there probably is no such thing for top executives positions – but conformity with the criteria of those who have already succeeded. To be compatible with the top men is to act like them, to look like them, to think like them: to be of and for them – or at least to display oneself to them in such a way to create that impression. (Mills 1956:141)

If the criteria for inclusion in the elite is the criteria of the already established, then favouritism is at the heart of the inclusion process. Although nepotism is a part of what constitutes favouritism, favouritism is much more. It includes the appointment of a successor who shares the spirit of the organisation. In this way the established ensure the reproduction of their habitual dispositions, even if they do not pass on their position to one with their genetic dispositions.

Recruitment to some lower positions in society might very well be distributed according to meritocratic standards, but meritocratic standards intensify the struggle for positions and function as a disciplinary tool for the benefit of the employers. It may be argued that elite sociology should engage with this double standard. This engagement is taken up by Mosca (1939:417–19), who argues that only the most radical reforms could make a dent in the tendency to nepotism and favouritism. But, according to Mosca, even institutions that prohibit the formation of families, such as the Catholic Church, are plagued by favouritism.

And it is perhaps worth asking if meritocracy as an ideal worth saving. If meritocracy is simply a demagogic metaphor for competition and a rigged competition at that, in which nepotism and cumulative advantages skew the game in the favour of the elite, then it is perhaps better to find new ways of envisioning a just form of recruitment to positions.

Gender and elite recruitment

The question of the under-representation of women in positions of power is one of the most familiar political discussions about elite composition in Denmark. The debate is strong both within the science community and in the political sphere, particularly since Norway introduced affirmative action and required corporations to include women on their boards or risk being closed down by the state. Elite sociology has made vital contributions to the discussion about the under-representation not just of women, but also of people of colour (Zweigenhaft and Domhoff 1998). Most obviously, elite sociologists are able to monitor the share of women in positions of power, but they can also point to the very stable recruitment patterns to the elite. Men from privileged backgrounds have held a comparable share of the corporate elite in Denmark since 1932 (Christiansen et al. 2001). The elite culture that is the basis for these recruitment patterns is very strong and there is no reason to think that it will change without external shocks such as state regulation. This is illustrated by the Norwegian affirmative action legislation that has led to a large increase in the number of women on corporate boards, with a very select group of women becoming very sought after (Seierstad and Opsahl 2011). These women have become more central and have been pushed to the top of the corporate network.

If we look at the groups studied in the articles in this dissertation – the top 100 CEOs of Article 1, the inner circle from Article 3, and the power elite from Article 7, – there is a clear under-representation of women. Among the top 100 CEOs in the UK, France and Denmark there are no more than two female CEOs in each country. The proportion of women rises to 8% (14 out of 171) in the inner circle and in the power elite to 19% (82 out of 423).

When the Danish Elite Network is split into sectors, we can see the variation across sectors. Not all sectors of the elite network are as foreign to women as the corporate world.

TABLE 2: SHARE OF WOMEN WITHIN SECTORS

SECTOR	TOP ¹	OTHER	EXTRAORDINARY MEMBERS ²
Unions	48%	44%	34%
Royal	46%	48%	15%
Politics	35%	32%	34%
Law	35%	32%	24%
Culture	30%	34%	31%
Science and education	29%	37%	27%
State	29%	33%	23%
Interest groups	27%	32%	29%
Other	25%	22%	23%
Media	24%	24%	17%
Corporations	19%	14%	7%
Business organisations	9%	21%	16%

¹Top 20% most central positions according to the weighted out degree centrality of the affiliations within each sector.

² Extraordinary members are members that are directors, chairmen or vice chairmen.

In table 2, the sectors, which are the same as those used in Article 7, are split into top and bottom. The top are the 20% most central positions according to the centrality of their affiliations within each sector. The difference between the top most central affiliations and the rest is fairly small across sectors, except for the notable difference in the network of the business organisations. This sector is also the most closed off for women in general but particularly in the top, where only 9% of the top positions are held by women. The sectors most receptive to women are the unions, royal, politics and law. If the centrality of the position is not strongly related to the proportion of women, then the role within the affiliations is. Women are less likely to hold roles in the affiliations that distinguish them from the ordinary members. When the affiliation chooses a chairman, vice chairman or executive members, it will more often than not choose a man. This is disproportionate not only to the amount of women in the general population but also to the amount of women within its sector and is most visible in the corporate sector, where only 7% of extraordinary members are women. So, in brief, most sectors have an under-representation of women, a few sectors have fewer women in their most central affiliations and most sectors give fewer extraordinary roles or positions to women.

The under-representation of women can be criticised on various grounds. From within an elite framework it is perhaps the distance between the social character and lived life experiences of the elite and the general public that is of the greatest concern. There is reason to believe that questions about gender equality, like equal pay, are addressed with less enthusiasm by men, perhaps especially elite men, than by women. From a

Bourdieuian perspective, gender roles and the gendering of different domains in society also ascribe different symbolic values to these domains. When Bourdieu uses the metaphor of the right and the left hand of the state (Arnholtz and Hammerslev 2013; Bourdieu 1998) he creates an image of a state that is split between the 'hard' economic rationality of the right hand and the 'soft' tasks of the left hand. Playing on gender stereotypes, it could be argued that the dominating right hand is the hand of the man and the subordinate left hand is the hand of a woman. Table 3 represents the share of women in positions in affiliations that are occupied with one or more of 370 subjects (or tags; see more in Article 5). On the left side we have the 'soft' subjects like children, health, art, education, family and social politics. On the right side we find the affiliations that are concerned with industry, finance capital, transportation, leadership and conservatism. Note that all of the tags with more than 50% women compose only 6% or 21 of the 370 tags. A dimension in the dominance of finance or new public management, for example, could be tied to gender inequalities and the misrecognition of subjects that are predominantly gendered towards women.

TABLE 3: WOMEN’S TOP AND BOTTOM SHARES OF SUBJECTS

DOMINATED BY WOMEN		DOMINATED BY MEN	
Subject (tag)	Women	Subject (tag)	Women
Teeth	95%	Construction	6%
Gender	72%	Conservatives	7%
Gymnastics	71%	Fishery	7%
Clothing	67%	Rural	7%
Public relations	67%	Venture capital	7%
Child care	61%	Roads	7%
Family	58%	Car sales	8%
Actors	57%	Sailing	8%
Cyclists	57%	Iron industry	8%
Library	57%	Pensions	8%
Middle class unions	56%	Self-employed	8%
Children	55%	Military	9%
Social politics	55%	Shipping	9%
Restaurants	54%	Travel	9%
Ethics	54%	Marine	9%
Integration	53%	Industry	9%
Primary education	52%	Leadership	9%
Human arts	52%	Hunting	10%
Language	51%	Cars	10%
Artists	51%	Machines	10%
Pharmacology	50%	Football	11%

In short, there women are clearly under-represented in all areas of the elite, particularly in the corporate world. The under-representation of women is correlated more strongly to the particular role within the affiliation than to the centrality of the affiliation within the sector. Women are less likely to be given extraordinary roles (e.g. chairman) than men. Adding to this discrimination is the fact that the share of women present in the affiliations differs considerably when the subject of the affiliation is considered. When the subjects are ranked according to their share of women, there is a clear pattern. ‘Soft’ subjects, which are related to the ‘left hand’ of the state, have a much higher proportion of women than the ‘harder’ subjects, which are related to the ‘right hand’ of the state and also tied to the general patterns of dominance in fields (Bourdieu 2007). Having the general resilience and stability of elite recruitment

patterns in mind, there is no reason to believe that there will be any change in the under-representation of women without legislation.

Elite circulation and multiple positions

Fields should not be seen as self-containing entities. Moving to the top of one field, especially a dominant one like the economic field, is a good way of getting access to top or at least influential positions within another field, if not also the recognition of the participants within the field. The perfect example would be the charitable foundation that donates to science. The board of the foundation could be composed of former CEOs, politicians and state officials, and they would distribute some of the fairly scarce money that is given to the scientific field. No one within the field would attribute great scientific skills to the members of the board, but they would nonetheless have considerable influence over the distribution of symbolic and economic capital within the field. Depending on their relative autonomy, fields are influenced greatly by agents outside of the field who hold prominent positions within it. There are two ways in which this may happen. The first way is by elite circulation, where a top full-time position is given to a former member of another elite. The second way is by holding multiple positions at the same time as being ‘double agents’, having ‘strategies function as *double plays*’ (Bourdieu 1996:271), often with a full-time position within another field.

The patterns of exchange of elite individuals between fields or sectors varies markedly across countries. As a result, Hartmann (2010) proposed a model of classification for national elites, with elite circulation a central concept. There are countries with a high degree of elite exchange and with almost institutionalised patterns of movement from the state and politics to top positions in the private sector. In France, this movement is so common so as to be dubbed *pantouflage* (Bourdieu 1996:391), or changing one’s slippers. This movement creates a strong integration between sectors and encourages tie formation. In Denmark, the career profiles of the Danish business elites are far from following the same pattern. As shown in Article I, in Denmark, only a few corporate top CEOs have career backgrounds outside of business. Movements from labour unions into state positions or into the Social Democratic Party and then further into semi-private business or business organisations are conspicuous, but their extent is somewhat under-investigated. Karsten, the current director of the most powerful employers’ association, the Confederation of Danish Industry, is an economist with a cross-sectoral career. Starting out as an economist in the labour union, he moved into a union-controlled pension fund and from there into the state, where he reached the highest positions: first as permanent secretary to the finance minister, then as permanent secretary to the prime minister. His current position is one of the most influential in the private sector. The inclusion of

the labour unions in elite circulation is probably a characteristic of the Danish corporatist state, but it would be interesting to investigate whether the movement between sectors is primarily one-directional, from the 'left side' (non-economic order) of the field of power to the 'right side' (economic order).

There is a lot more to integration between fields and sectors than career paths. The most common is the multipositional individuals, who have positions in more than one sector. Multipositional individuals might not have a primary affiliation to any one sector, or may keep their primary occupation within one sector or field and still gain access to powerful positions within another. Multipositional individuals may import logics from one field into another. This is often the stated purpose of inter-sectoral ties. A university gains a 'better understanding' of the needs of business when the board has a CEO or corporate chairman among its members. By including union leaders in a commission, the views of the unions are heard and taken into account. If these groups or positions are influential within a field or sector, then the field is penetrated by another field, and its internal logics may be challenged by the external field. This process creates challenges to the legitimacy of the field. This example is most clear cut in science, when the internal values of the scientific field may run contrary to the interests of the corporate community as represented on the university board. If society can be seen as divided into functionally defined and relatively independent sectors or fields, then what process legitimises the transformation of their internal workings and hierarchies? A political mandate might suffice, but most multipositional elite individuals hold no political mandate and are therefore far more difficult to replace than elected individuals who base their power on just one position.

But multipositional individuals do not cause legitimacy problems only because they import new logics into otherwise relatively independent fields without a clear political mandate. It is difficult to represent the inherent diversity within a field, most importantly the differences between the challengers and the incumbents (Fligstein 1996b). When the state invites multipositional individuals into their boards, these represent specific organisations and positions within their original fields. These positions do not reflect the field in total, as is clearly shown in Article 4: 'Who listens to the top? Integration of the largest corporations across sectoral networks'. The largest and most prominent corporations take the lion's share of ties to affiliations outside of the corporate network.

It is worth asking if the struggles within the field are carried into other fields. Do corporations invited onto university boards try to shape the university to fit the needs of the specific corporation or those with similar positions within the economic field? This problem lies at the heart of the concept of the *'class wide rationality'* (Useem 1982). CEOs and directors within the corporate community have to show their ability to

transcend the particular interests of their 'primary' corporation and formulate visions that include the entire capitalist class. Those who represent the class-wide rationality are included in the *'inner circle'* of the business community (Useem 1984). For more on the inner circle, see Article 3: "The inner circle revisited". The analysis of the inner circle shows that individuals with high inner-circle centrality are much more likely to hold positions across several sectors. But as is shown in Article 4, it is still primarily the size of the corporations that explains inclusion in trans-sectoral networks. The top 250 corporations are heavily over-represented across all sectors, and especially in the scientific and academic fields. The informal rules that govern inclusion in the inner circle do not prevent the largest corporations from getting the lion's share of trans-sectoral influence. From this follows the problem that the economic field as a whole, and the challengers or the dominated in particular, are vastly under-represented.

But could this be different? The state could take responsibility for the overall misrepresentation of a field instead of trying to solve the question of representation in a case-by-case fashion. For certain positions, such as on university boards, the board members could have publicly known and collectively bargained mandates. Moving beyond this mandate could be deemed reason for exclusion. In this way the informal rules of the inner circle would be made explicit and written into law, becoming much more than a tool of distinction.

The continuous taming of the elite is a process that requires constant attention. Elite privileges, inequality and the increasing concentration of power in the hands of the elite must be met with reform. Taming of the elite through reforms that produce transparency, democratic mandates, accountability and equality is a central part of modernisation. By opening the elite to new institutions and new social characters, to women, to children of the working classes, to a wider set of educations, it is possible to bring the elite and the masses closer to each other. We should discuss which interests should be allowed to gain influence over the different parts of society. And we should discuss whether the interests of the power elite and the organisations they represent should have a stronger or weaker position within the central fields of society.

Conclusion: Studying Elites in Denmark

The power elite integrate the key institutional orders of society in what Bourdieu (1996:263) calls ‘the organic solidarity of a genuine division of the labor of domination’. The composition, size, social character and mode of reproduction of this group is central to the understanding of any society (Aron 1950a). In Denmark, the power elite are a cohesive group of 423 people including the most prominent members of Danish high society: the prime minister, the permanent secretaries, CEOs and chairmen of the largest corporations, members of the richest families, leading economists, union leaders, high court lawyers, and the royal family. These are described in Article 7: ‘The Power Elite in the Welfare State’. The key institutional orders within this group are the triumvirate of organised capitalist class, organised labour and the state. Within this triumvirate, the organised capitalist class – employers’ organisations and the largest corporations – are by far the most dominant fraction within the power elite. Combined, they account for almost half of this group.

The social character of the power elite is very different from that of the general population; for example, they are recruited from very few university programs, have very exclusive social backgrounds and their places of residence show very clear patterns of a shared culture.

In Article 6: *The methodology of identifying power elites*, we identify the power elite by means of a new methodology that uses the k-core decomposition or minimum degree (Seidman 1983) to identify a cohesive core within the network. A simple weighting principle is applied to the network, based primarily on the size of the affiliations within the network. This procedure was applied to a unique dataset on an affiliation network of 62,841 positions in 5,332 affiliations held by 37,750 individuals, as described in Article 5: *The Danish Elite Network*. The inclusive dataset is composed of all nationally relevant affiliations that might integrate between organisations.

Although some of the affiliations are social events and career networks, the bulk are boards, advisory boards, commissions and political committees. Affiliations that also tie the elite together require collaboration and are positions of power in their own right.

This new methodology produces solutions for identifying national elites, which, unlike the positional method, are comparable across countries and time periods. Instead of defining the size and composition of the elite beforehand, the data-sensitive method identifies a group bound together by interaction.

Articles 1, 2 3 and 4 describe the dominant economic fraction within the power elite. Article 1: *A very Economic Elite*, describes the career trajectories of the top 100 Danish CEOs determined by specific multiple correspondence analysis and ascending clustering analysis. We identify three dimensions that divide the space of the otherwise very homogeneous CEOs: first, the accumulation of organisational capital; secondly, the opposition between technical expertise and salesmen; and thirdly, the amount of inherited capital. The Danish business elite are recruited mainly from within the economic field and rely on careers in large corporations. Unlike in France, there is no systematic movement between the state and the top corporations. The role of elite education also appears to be less central in Denmark than has been shown in the UK and France, but this said, the social backgrounds are comparable.

Article 2: *Status and integration on the field of power for Danish top CEO's*, analyses the differences in symbolic capital in the field of power, and the opposition between owners and managers, among the top 100 Danish CEOs. About a third of the directors are excluded entirely from symbolic and social capital within the field of power. This group of excluded directors is more often from relatively smaller corporations and originate from the lower classes. This leads us to an understanding of the exclusivity of the higher circles of the corporate world.

Article 3: *The inner circle revisited* identifies the inner circle of the corporate network, which, according to Michael Useem (1984) produces the class-wide rationality of the capitalist class. The small community of 171 businessmen are the most politically active, and they are therefore often present in central positions across the different fields of the elite.

Article 4: *Who listens to the top? Integration of the largest corporations across sectoral networks* investigates the organisational underpinning of the inner circle and the corporate elite. The correlation between cross-sectoral ties and measures of size and prominence reveal a clear pattern. Among the top 1,037 corporations, it is the top 250 that are markedly better integrated than the rest. The inner circle and the corporate elite within the power elite are drawn primarily from this class of big business.

The results of naming and describing the power elite may raise questions of its legitimacy. Although this question is beyond the role of the sociologist, it is clear that the findings of this dissertation present questions and provide input to debates topics such as the under-representation of women, the meritocratic character of the elite and field autonomy.

Future points of convergence

Our findings are placed within the framework of Pierre Bourdieu and C. W. Mills, but some scholars, perhaps most notably those within the pluralist tradition, may be sceptical about a number of the theoretical assumptions within our framework. Putting these controversies aside, there are interesting points of convergence between proponents of the positional and decisional approach and ours.

The identification of a cross-sectoral core within a large affiliation network is interesting for scholars using the positional method, because it allows them to investigate the difference between those organisations and individuals that are central and those that are not. Within the network, scholars may also find organisations that are central within the network, but which do not place high within the sector-specific rankings used in the positional approach. This could lead to either a sophistication of the rankings in the positional approach or the starting point for an inquiry into what role these organisations play.

Scholars who trace decision-making processes may also gain insights into the structural position of the individuals and organisations that are active within the processes. Agents could be grouped according to their faction within the network or processes could be identified according to the centrality of the participants. If very central individuals are active, it may be because the decision is of some importance to powerful players.

The findings in this dissertation raise new questions in elite sociology. The most important question is of course the extent of national variation in elite composition. This variation is important for the formulation and elaboration of elite theory. What are the common characteristics of modern elites? Is there a single European elite culture? Does the relative strength of the corporate sector vary across countries? These questions are comparative in nature and the methodology presented in Article 6 could form the framework for such an investigation. Whether or not this method is applicable in larger and more complex countries is open to debate. Denmark is a small, transparent and corporatist society with a fairly simple collection of affiliation networks, but this might not be the case for a country such as Germany, which has a population that is 16 times the size.

Although international comparisons are important, the Danish case is still a great source of new insights. It is clear that a field analysis of the power elite in Denmark could yield insights into the relationship between the positions within the network and within the field of power. Such a study could investigate and integrate the two most prominent methods in the relational sociological tradition (Emirbayer 1997). By integrating social network analysis and multiple correspondence analysis, we may identify new properties of the structure of the elite.

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The articles



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Abstract

Although the business elites in western societies have a very privileged social background in common, there are substantial differences in the reproduction mechanisms and social trajectories leading to a position within this elite group. These differences are explored by comparing the career paths of the top 100 CEOs in Britain, France, Germany and Denmark. In France and Britain, this reproduction is mediated through degrees from elite universities. In Germany, the principle of admission is the incorporated cultural capital acquired through an exclusive bourgeois origin combined with any university degree. Elite universities also hold little importance for Danish top CEOs, partly due to the institutions' historic decline; instead, reproduction is mediated through time spent in the economic field, placing the case of the Danish CEOs between that of their British and German counterparts. Specific trajectories of Danish executives, in particular sales people, are identified using Multiple Correspondence Analysis and cluster analysis.

Keywords

Bourdieu, CEO, commercial capital, correspondence analysis, economic elite, field of power, organizational capital, symbolic capital

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Business Elite Reproduction

We must understand the objective structure of opportunities as well as the personal traits which allow and encourage given men to exploit these objective opportunities which economic history provides them. Charles Wright Mills (1956: 97)

The career trajectory of CEOs in large corporations shows which forms of resources these men – for they are usually men – use to qualify for, and legitimize holding, a position of power and also allows us to view the relative strength of central societal institutions, such as the family, the educational field and the market that transmits resources, and the nature of the respective national economies. As Aron (1950: 141) argues, one of the most characteristic features of any society is how the elite is structured and reproduced. Through a comparative study of the leading 100 senior executives in large, industrial countries, primarily France, the UK, and a Scandinavian welfare state, Denmark, we explore the importance of families, educational system and economic organizations as institutions of elite reproduction.

While the relative importance of these institutions may differ in magnitude, the overall social origin of the top managerial elite is very similar, as shown in Table 1. At least four-fifths of senior executives originate from the top fifth of their respective society. The pathways are relatively heterogeneous, with diverse prevalences of exclusive secondary education, elite university diplomas and elite circulation. Following Hartmann (2007: 61–80) three models can be identified: 1) a French and Japanese model with high importance of elite universities – or *grandes écoles* – exclusive secondary education and high elite circulation; 2) a British and American model with high importance of elite universities and secondary education, but little elite circulation with low intersectoral mobility; and 3) a German model with little importance of elite universities and little elite circulation, with reproduction mediated through a ‘class-specific habitus’ – the incorporated cultural capital attained through upbringing in the bourgeois family (Hartmann, 2000: 243, see also Bourdieu, 1984: 66) – enabling individual mastery of the behavioural codes of the boardrooms. When looking at business elite reproduction, the question is to what degree the incorporated cultural capital of the business elite offspring can successfully be turned into institutionalized cultural capital in the form of diplomas from elite universities, enabling a ‘school-mediated mode of reproduction’ (cf. Bourdieu, 1986: 244, 1996: 285–90), or, alternatively, are reproduction strategies based in forms of capital acquired outside educational institutions? The mode of reproduction of a Scandinavian business elite, however, remains largely unresolved vis-a-vis Hartmann’s terminology.

The phenomenon left to be explained is the surprisingly stable pattern of reproduction of the managerial elites. This pattern is part of a general image of an extremely homogeneous business elite with regard to age, sex and ethnicity (Bauer and Bertin-Mourot, 1999: 16). Even though the reproduction rate of the business elite has decreased historically, the social background of this group has remained very exclusive over the last 250 years in the major industrialized nations (Kaelble, 1980: 415–16). Adding to this, Andrlé (2001) suggests that post-communist economic elites have a strong family linkage to the pre-communist bourgeoisie, emphasizing the strength of this particular type of reproduction mechanism. The closer to the top of the business hierarchy, the more important having a

Table 1. Social origin of top 100 CEOs.

Year	Denmark 2007	France 1998	UK 1998
Upper class	33%	43%	35%
Upper-middle class	35%	34%	29%
Lower-middle class	25%	19%	25%
Lower class	8%	4%	11%
N (of known cases)	78	98	91

Note: The data on France and the UK are based on Maclean et al. (2006: 91), who identify origin in the upper class exclusively by being ‘born into a family with substantial wealth and a large income based on inheritance or a parent occupying a leading position in society’ (Maclean et al., 2006: 266). Source: France and UK, Maclean et al. (2006: 91); Denmark, authors’ own research.

moneyed family background is (Hartmann, 2007: 92). In all the countries compared, the majority – approximately two-thirds – of the top CEOs are recruited from social groups within the top 20 per cent of society, as Maclean et al. (2006: 91) define the upper middle and upper class. Almost the same exclusive background can be identified among a less exclusive part of the economic elite in Norway (Gulbrandsen, 2005: 344). Along with cultural elites, economic elites have the most exclusive social background of all elites in the Scandinavian countries (Ruostetsaari, 2008: 164). The homogenous background of private corporate leaders is also seen in Germany (Hartmann, 2000), with estimates of 82 of the top 100 senior executives originating from the dominant classes in 1995, of whom 34 had fathers engaged as industrialists or bankers, while 11 originated from the middle and lower classes (Hartmann, 2000: 248), albeit the middle class includes only the CEOs with ‘Lower-middle class’ background in Table 1.

Drawing on the terminology of the field of power developed by Pierre Bourdieu (1996), the notion of forms of capital (Bourdieu, 1986) is used as a strategy to identify the resources at stake among the most powerful economic agents. By analysing holders of the top 100 executive positions, we restrict ourselves to a particular subspace – the business elite – within the economic pole of the field of power. These agents acquire the organizational capital needed to enter the upper echelons of corporate management. The concept of the field of power is thus used as an epistemological tool, rather than as a grand theory that ties power tightly to economic and cultural capital (cf. Hjellbrekke and Korsnes, 2009: 44–5), to identify a multidimensional space of different forms of capital within the business elites through geometrical data analysis. The structure of the different forms of capital needed to enter the business elite is explored using geometrical data analysis. Using the Euclidian distances generated within this space, four distinct pathways to top management in Denmark are explored through hierarchical cluster analysis.

Within this framework, convincing comparisons have been made between career trajectories and the significance of educational institutions in large industrial societies (Bauer and Bertin-Mouro, 1999; Hartmann, 2007, 2010; Maclean et al., 2006); other studies have compared less exclusive elites (Useem and Karabel, 1986) or national elites alone (Bendix

and Howton, 1957; Flemmen, forthcoming). Although a study has described the business elite in Denmark (Christiansen and Tøgeby, 2007), the scope and methods received considerable criticism for their limitations (Andersen, 2005; Ellersgaard and Grau, 2008; Sørensen, 2004), which led to inaccurate characterization of the Danish business elite within contemporary literature (Hartmann, 2010: 314; Ruostetsaari, 2008: 147ff).

While comparing the Danish case with larger, industrialized societies, particularly France, Britain and Germany, we address the following two research questions:

- 1) To what extent is the institutionalized cultural capital of Danish top CEOs tied to elite universities or elite schools?
- 2) Through which forms of capital do Danish top CEOs acquire and legitimize their position?

Understanding Business Elites through the Terminology of Fields

Following Savage and Williams' (2008: 15) call to apply the terminology of Pierre Bourdieu as valuable guidance in the study of elite reproduction, we examine the symbolic elements of the economic field (Lebaron, 2000: 124) used to legitimize the positions of executives. CEOs reproduce their position through symbolic capital, which is the legitimate form of capital giving their dominance an 'innocence of natural phenomena' (Bourdieu and De Saint-Martin, 1978: 26). The legitimating value of these symbols is determined in the struggles in the field of power (Bourdieu, 1996: 264–5). The symbolic capital used in the economic field is also determined by other fields, such as the academic field. Accordingly, our empirical findings of the social biography, educational pathway and career pattern of top CEOs are not merely a description of qualifications. These social facts can be analysed as position takings by accumulating legitimate forms of capital in relation to the state of – and struggles in – three embedded fields: 1) the field of the firm; 2) the economic field; and 3) the field of power. The relative autonomy of the economic field from other fields, and thereby its position in the field of power, is therefore indicated in the reproduction of the CEOs.

The strategies of firms[...] depend also on the structure of power positions constitutive of the internal governance of the firm or, more exactly, on the (socially constituted) dispositions of the directors [dirigeants] acting under the constraints of the field of power within the firm and the field of the firm as a whole. (Bourdieu, 2005: 205)

Hence, executives produce 'the interest of the firm as *their interest within the firm*' (Bourdieu, 2005: 207, italics in original). Bourdieu (2005) notes that firms as fields tend to have homologous or isomorphic structures (cf. DiMaggio and Powell, 1983: 148–50; Fligstein, 1996: 657) and thus that the same type of strategies may be successful. Therefore, the population of CEOs examined here can be seen as agents capable of having success in the homologous fields of their respective firms.

We can understand the firm in which the top executives have succeeded as a field both of *force* and of *struggle* embedded within the economic field in general (Bourdieu, 2005:

69, 205–6). Due to the importance of economic capital, these fields are also related to the struggles within the field of power as a whole (Bourdieu, 1996: 264–72). A field of power is structured by particular compositions of capital, making the hierarchies of fields both multidimensional and relational (Hjellbrekke et al., 2007: 245–6). These structures are identified using Multiple Correspondence Analysis (MCA) (Lebaron, 2009).

Bourdieu (2005: 194–5) identifies a number of central forms of capital in the economic field. These include financial, cultural, technological, juridical and organizational, commercial, social and symbolic capital. ‘Capital’, Bourdieu (1986: 241) notes, ‘is accumulated labor’ thus acquired over time depending on the structure of distribution of the different forms of capital. Having access to the capital needed to occupy a dominant position thus enables the agent to influence both the ‘games of society’ through which these forms of capital are accumulated and the conversion rates between different forms of capital, which is the central stake in the struggles within the field of power (Bourdieu, 1996: 265).

The technological capital – ‘the portfolio of scientific resources (research potential) or technical resources (procedures, aptitudes, routines and unique and coherent know-how, capable of reducing expenditure in labour or capital [...])’ (Bourdieu, 2005: 194) – can be seen as an applied or field-specific component of cultural capital, while not necessarily requiring the same incorporated features as the mastery of a more generalized cultural capital. Therefore, we interpret university diplomas in economy or science, and particularly doctorates, as indicators of cultural-technical capital identifying experts rather than intellectuals. In our MCA, we limit our focus on the reproduction mechanism to organizational, cultural-technical, commercial and what can analytically be labelled as inherited capital. Available through ‘the Family Mode of Reproduction’ (Bourdieu, 1996: 278ff), inherited capital can consist of 1) financial capital, such as the heritage of the financial resources tied to ownership; 2) cultural capital in the incorporated form allowing the grace of the native within the social games of the dominant classes (cf. Bourdieu, 1984: 339); 3) social capital providing access to the network of the established family; and through this 4) symbolic capital tied to the family name and its ‘social investment strategies’ (Bourdieu, 1996: 273). Inherited capital thus enables the agents to understand the doxa (Bourdieu, 1996: 35, 272) of the firm as a field, and the economic field in general and gain mastery of the class-specific habitus (Hartmann, 2000), or what Mills (1956: 140) terms the ‘sound character’:

Those who have started from high have from their beginnings been formed by sound men and trained for soundness. They do not have to think of having to appear as sound men. They just are sound men; indeed, they embody the standards of soundness. (Mills, 1956: 142)

Data

The Danish data were collected using the prosopographical method (Broady, 2002), while using a wide array of sources to access biographical and corporate information. Data were systematically collected from the Danish equivalent of *Who's Who?* (Kraks Blå Bog), Greens Erhvervsinformation (a private business information database), journalistic portrait articles, article search engines, bibliographic databases, financial reports

and public registers. The method used to identify forms of capital and relations is Specific Multiple Correspondence Analysis, with support from a descriptive analysis of the various business elites.

CEOs from 82 corporations were selected according to their position as CEO in December 2007. We included 18 executives on other criteria, taking into account the magnitude of the corporations and issues regarding ownership and control, leaving us with a final population of 100 CEOs. These CEOs thus compose a business elite holding positions of command (Scott, 2003: 156–7). Inside this exclusive group of top corporations, there is a considerable difference in size. The turnover of the shipping giant A.P. Møller-Mærsk is 50 times higher than that of the company with the lowest turnover (EAC). The corporation with the most employees (ISS), with half a million employed, has more than a thousand times the number of employees than the state-controlled gambling monopoly (Danske Spil). Because of these major size differences between top Danish corporations, more than one senior executive from the largest companies have been included. Moreover, six owner-managers were included – all were both former CEOs and current chairmen within the corporation – as they could be seen as the *de facto* leaders of the firm, both internally and externally.

The 82 corporations with formal ownership and management located in Denmark were selected through either financial capital, measured as having a turnover of over five billion DKK (€650 million), or organizational capital, defined as having a least 5000 employees; 34 corporations were included on both criteria, 45 on financial capital and three on organizational capital alone. To avoid including investors, rather than executives, a minimum of 500 employees was also required, excluding 12 firms. Companies acting only as subsidiaries were also excluded.

The Comparative Methodology

The historical differences between the nation-state-based business elites under comparison are considerable (cf. Scott, 1997: 16; Windolf, 1998: 321–2). The most significant is the difference in the size of the economy and, consequently, also the number of world-scale corporations. Likewise, the ownership structure varies, for example, with more dispersed shareholding in the UK and more family and state control in France (Maclean et al., 2006: 69) and Denmark. Following Hartmann (2010), a small number of Danish CEOs could be compared with the top 100 from large, industrialized countries. However, this would make it impossible to study elites of the same relational importance, reputation and size within the nation-states.

Apart from being cases of the three models of business elite reproduction, the reason we restrict our direct comparisons to certain studies of French, British (Maclean et al., 2006) and German business elites (Hartmann, 2000, 2007, 2010) is because these studies define the business elites with the same level of exclusiveness as our data: the top 100 senior executives, or the top decile of the dominant segment of the business elite as identified by Useem and McCormack (1981). Here, we present the most important discrepancies. The Danish data include executives only, whereas Maclean et al. (2006) also include non-executives with many top-board memberships. Compared with our selection criteria of either financial or organizational capital, Hartmann (2000) used turnover with the

predefined relation 5:3:2 of corporations from industry, commerce and finance. The solution used for Denmark gives a relative strength of 39:32:17 from industry, commerce and finance (the 12 executives from conglomerates excluded). This should be attributed to the distinctive trading culture that has shaped economic life in Denmark (Fellman, 2008), rather than to bias towards inclusion of commercial corporations in our analysis.

The Disappearance of the Elite School

Capital acquired through exclusive educational institutions has been given a pivotal role in studies of elite recruitment, with the importance of diplomas increasing with the size of the corporation (Bourdieu et al., 1973: 66–70). In this sense, elite universities are defined not so much by their ranking as by their ability to secure 1) a substantial number of alumni placed in the most powerful positions in society (Hartmann, 2000); and 2) an exclusive social selection, often probing the elite socialization through personal interviews (Karabel, 2005), thus enhancing elite consciousness. Consequently, this makes the sole selection criterion of Danish universities – grade-point average – a less efficient exclusion strategy because of the inability to examine, and thus legitimize, more personal traits gained through inherited capital (cf. Bourdieu, 1996: 295ff).

As Table 2 shows, the educational profile of Danish CEOs is similar to that of their British counterparts. A university diploma is certainly important to succeed in the upper echelons of management but is not a prerequisite in the same way as in Germany or France. Rarely do Danish CEOs have educations that are primarily connected with cultural capital, such as the arts, humanities and social sciences. Instead, it is diplomas in applicable business knowledge or technical competences that are required. Hartmann (2000: 252) describes the difference between German universities focusing on technological capital – ‘the transfer of subject knowledge’ – and French elite institutions reproducing and converting cultural capital: ‘abilities such as intellectual brilliance, rapid comprehension, responsibility, leadership drive, and a pronounced elite consciousness’.

No university programme or institution in Denmark can be seen as an elite university according to the first definition: in itself being so prestigious that a promising career leading to a highly powerful position is guaranteed. Most top CEOs (14) attended general business education at the Copenhagen Business School (CBS), the University of Copenhagen or the Technical University of Denmark (DTU); each institution has 12 alumni in top senior executive positions. Considering there are relatively few institutions offering university diplomas, the number of CEOs from each institution is low. Additionally, none of these institutions is important for the recruitment of other elite groups in Denmark.

While research clearly demonstrates that selection into tertiary education in Denmark is tied to parental social position and cultural reproduction (Munk and Thomsen, 2011; Thomsen, 2012), and the engineers and economists are generally recruited within the economic upper class, there is no indication in our Danish data of a strong linkage between parental background and the top CEOs’ elite education, as seen, for example, in the UK (Maclean et al., 2006: 119). Furthermore, no more than five of the top 100 CEOs qualified from among the top 25 programmes, measured by grade-point average minimum of enrolled students, in either 1979 (the median graduation year of the CEOs) or in

Table 2. Education profiles of top 100 CEOs.

Year	Germany 1995	France 1998	UK 1998	Denmark 2007
<i>Education type</i>				
Arts, humanities or social sciences	27	2	12	7
Business, economics or administration	33	42	26	43
Science, engineering or medicine	22	44	27	25
Professional	6	4	29	23
School only	0	7	5	0
Not known	9	1	1	2
<i>Highest qualification</i>				
Doctorate	46	10	6	8
Higher degree	36	80	23	54
First degree	–	2	45	13
Professional qualification only	6	0	20	23
School	–	7	5	0
Not known	9	1	1	2
N	97	100	100	100

Note: Sources: Germany, Hartmann (2000: 248); France and UK, Maclean et al. (2006: 117); Denmark, authors' own research.

2007. Thus the institutionally validated personality gained through exclusive social selection of the student – as used in the second definition of elite universities – is in no way a common feature of the programmes followed by the Danish CEOs. However, through examinations, some programmes may contribute to a selection process and thus gain more exclusivity before individuals take up executive positions.

Despite Germany having no elite universities, the institutionalized cultural capital of a university or doctoral degree is important: almost 90 per cent of CEOs have a higher degree and almost half have a PhD (Hartmann, 2010: 303–4). In Germany, doctorates may also be gained much later in the career trajectory (Bauer and Bertin-Mourot, 1999: 26), tying holders of this title more to their organizational capital within the firm than to their inherited cultural capital. Nonetheless, the number of doctorates emphasizes the importance of scholarly capital compared with Denmark's less than two-thirds with master degrees and less than one in 10 with doctorates, as shown in Table 2. Thus, in Denmark, few exclusive university programmes, or academic merits in general, act as gatekeeper in legitimizing a potential elite member's social qualifications.

Adding to this result, we have not been able to identify Danish secondary equivalents of the British public schools, the American boarding schools or the prestigious French *Lycée* [the *khâgne*] so important for both recruitment and networks of future elite individuals

(Bourdieu, 1996: 84; Maclean et al., 2006: 96ff; Mills, 1956: 67). The most well-known Danish boarding school, Herlufsholm, has only one former student as a top CEO; the two most prestigious secondary schools situated in the most upscale Copenhagen suburbs have two former top CEOs as alumni. No evidence suggests that social or cultural capital gathered through the attendance at specific institutions of secondary education plays an important role in the qualification or selection process of Danish top CEOs. These findings appear to be general for the Scandinavian countries; Mastekaasa (2004: 223) describes the absence of elite institutions in Norway on both the secondary and the tertiary level.

Interestingly, the lack of an elite university or programme is not because none has been established. In the 1950s, DTU was one of two institutions with admission criteria other than a secondary diploma. The DTU had an explicit focus on developing tomorrow's leaders (Reinholdt Hansen, 2000). In 1999 almost one-third of the top 250 Danish CEOs were engineers (Christiansen et al., 2001: 153), whereas only 17 engineers are included in our population of 2007, eight years later. Of these, 10 were born before 1950 compared to only 27 of the CEOs in total, adding to the image of a declining engineering profession. While similar tendencies are found in Norway (Gulbrandsen et al., 2002: 59), the strength of the French engineers leads us to believe that the diminishing numbers of engineers may be due to the lack of exclusiveness. The decline of DTU's prestige may have been due to its relocation in 1974 from the centre of Copenhagen to the suburbs, Kgs. Lyngby, and a subsequent restructuring, resulting in a substantial increase in enrolment. Accordingly, the alumni lost both the symbolic benefits and the *esprit du corps* that a potential French executive gains from the *numerus clausus* at, for example, the École Nationale d'Administration with an annual intake of around 175 students from more than 2000 applicants.

The structural homology between the field of elite universities and the field of economic power found by Bourdieu (1996) in France thus plays a subordinate role in the reproduction of the business elite in Denmark. As our correspondence analysis shows, we can therefore interpret the university diplomas of Danish top CEOs as principally being indicators of technical capital, as in Germany. However, as in Britain, this technical capital is not a prerequisite for a successful managerial career. In this sense, Denmark is placed between the German and the British positions, with elite universities being of little importance, as in Germany, but, as in Britain, academic qualifications in general being of less importance.

Reproduction through the Economic Field

Without the selection mechanism of elite universities, how are the cohesion, homogeneity and exclusive social background of CEOs possible? As Table 3 shows, it is necessary to have a career in the economic field. The degree of elite circulation in Denmark resembles the low circulation found in Britain and Germany (Hartmann, 2010: 304) without the French tradition of *pantouflage* from higher civil service to a managerial career (Bourdieu, 1996: 329). However, loyalty towards one firm, an important component of organizational capital, seems more important in the larger industrial societies. More than half the German CEOs have spent their entire career within one corporation (Hartmann, 2010), whereas this holds true for a quarter of the Danish top CEOs.

Table 3. Career profile and characteristics of top 100 CEOs.

	France	UK	Denmark
Year	1998	1998	2007
Corporate	41	84	57
Enterprise to corporate	9	2	30
Public administration or organizations to corporate	49	3	7
Law to corporate	0	6	1
Media, politics, academia or sports to corporate	1	5	2
Not known	0	0	3
N	100	100	100
Age at first appointment as top CEO	40.5	44.1	44.4
(Standard deviation)	(6.0)	(5.8)	(7.3)
Number of companies to first top 100 directorships	2.2	2.1	2.9
(Standard deviation)	(1.2)	(1.2)	(1.8)

Note: Source: Career profile, age as top CEO and number of companies in France and UK (Maclean et al., 2006: 127, 117, 139), Denmark, authors' own research.

Another important finding shown in Table 3 is that it seems much easier to change path from enterprise to corporate careers in Denmark than in both France and the UK. This suggests that capital and merits gained from the economic field in general, rather than purely the space of top corporations, qualify potential top CEOs. Likewise, Danish top CEOs have had, on average, almost one more corporation as an employer than have their French and British counterparts.

An important characteristic of Danish top CEOs in a comparative perspective is the importance of their corporate career and thus their organizational capital. The relatively high number of 16 CEOs with no educational diplomas, apart from being trainees in large corporations, points to the importance of some corporations, particularly A.P. Møller-Mærsk, as being academies (cf. Cappelli and Hamori, 2005: 25) within a corporation-based mode of reproduction. This organizational capital is not a prerequisite, as the trajectories of several Danish top senior executives point to more irregular careers based in enterprises in the economic field, but outside the hierarchies of large corporations.

Identifying Relations between Forms of Capital: Multiple Correspondence Analysis

Correspondence analysis, Bourdieu (2005: 102, italics in original) notes, can be used 'to bring to light the structure of positions or – and this amounts to the same thing – the structure of distribution of specific interest and powers that determines and *explains* the strategies of the agent'. Through this method, we visualise the opposite positions

Table 4. Contribution of active variables.

Heading	Variable	Modalities	Dim.1 (25%)	Dim.2 (18%)	Dim.3 (14%)
<i>Career</i>	Career start	2	7.9	4.8	0.8
	Years from education to executive	4	12.3	3.7	5.6
	Years in corporation until CEO	5	17.8	6.2	4.1
	Age as CEO	4	8.0	0.3	10.8
	Career changes	3	8.4	8.6	4.1
	MBA	3	4.3	1.6	2.6
	Business diploma	2	3.5	0.0	0.0
	Abroad	3	1.1	2.0	8.2
<i>Total</i>		26	63.3	27.2	36.2
<i>Education</i>	PhD	2	0.8	7.5	1.6
	Education	9	17.1	16.9	8.9
	Author	2	1.9	12.1	2.4
	Career foundation	5	5.6	12.1	5.6
<i>Total</i>		18	25.4	48.6	18.5
<i>Family</i>	Place of birth	5	5.0	13	10.3
	Social background	7	5.1	9.0	20.4
	In-laws in <i>Who's Who</i>	2	0.7	0.5	2.0
	Family in <i>Who's Who</i>	2	0.3	1.6	12.5
<i>Total</i>		16	11.1	24.1	45.2
<i>All headings</i>		60	100	100	100

generative of practice by graphically identifying the distribution of ‘objective positions’ within the business elite.

A Specific Multiple Correspondence Analysis, which allows us to ignore missing or redundant categories when determining the Euclidian distance between the individuals by which the principal axes are determined (Le Roux and Rouanet, 2004, 2010), was conducted on indicators of organizational, technical-cultural and inherited capital (Table 4). Note that these indicators cover the career trajectory only until the first appointment as a CEO at one of the 82 selected corporations. It is difficult to separate the institutionalized cultural capital tied to academic diplomas from the more work-related and applicable technical capital when no valid indicators of either social or economic capital before appointment are available.

We identified a multidimensional Euclidian space consisting of three interpretable axes accounting for 57 per cent of the total adjusted inertia (Le Roux and Rouanet, 2004: 209). The interpretation of the axes is inferred by the modalities with a contribution value above average (Jambu, 1991: 286).¹ Figures 1 and 2 map the geometrical representation of the axes’ principal components. When interpreting these, distances between modalities above 0.5 are considered ‘notable’, while distances above 1.0 are deemed to be ‘large’ (Le Roux and Rouanet, 2010: 71). As shown in Figure 1, the first axis, explaining

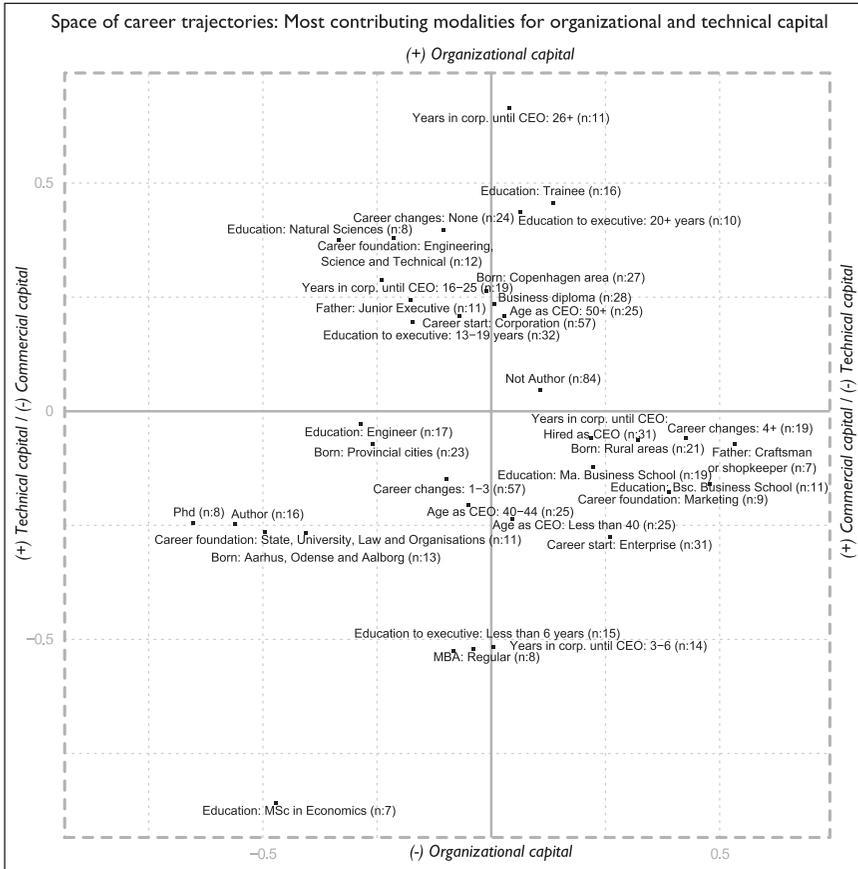


Figure 1. Modalities with above average contributions to axis 1 and 2.

25 per cent of the total inertia, captures a contrast between agents holding large amounts of organizational capital (typically, trainees with long careers within the corporation and no company changes throughout their career) and those who succeeded through other forms of capital, usually with a much shorter career length.

The left side of the second axis, representing 18 per cent of the total inertia, shows CEOs with high amounts of technical or cultural capital before appointment; for example, having authored a book, a doctoral degree and being born in a provincial town. The right side shows CEOs with large amounts of commercial capital. Characteristics of CEOs with commercial capital are a high number of career changes; rural upbringing; father being a farmer, craftsman or shopkeeper; career start in enterprises; and having a BSc and an MSc in Business from the Copenhagen Business School. All modalities of university education are placed on the left side of the second axis of technical and commercial capital, while trainees and those with vocational training are placed with the business school graduates on the right side. Thus it seems that the distinctive features on

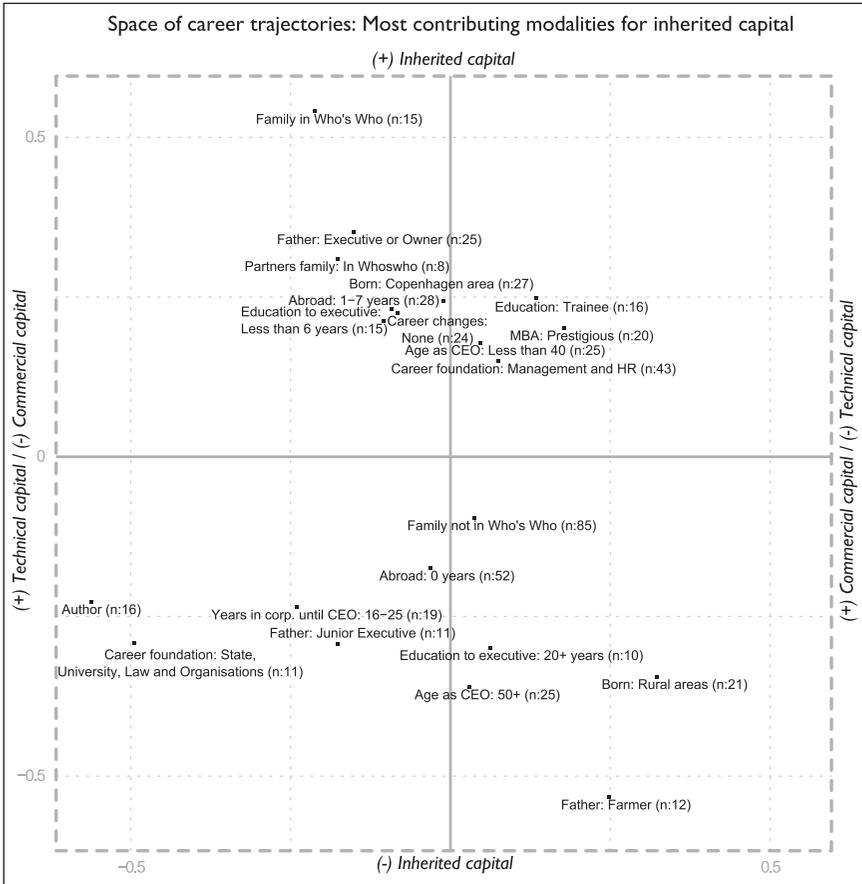


Figure 2. Modalities with above average contributions to axis 3.

the Danish CEOs shown in Tables 2 and 3 are closely tied to a career path dependent on high amounts of commercial capital.

When interpreting the third axis, accounting for 14 per cent of the total inertia (Figure 2), a clear division in amount of inherited capital is seen, with top CEOs with parents (or parents-in-law) mentioned in the Danish equivalent of *Who's Who*, parents who were executives or owners, and CEOs born in the Copenhagen area opposed principally to CEOs with rural backgrounds. Those associated with high levels of inherited capital are seen as managerial potential from the start of their career and therefore achieve their first executive position shortly after finishing their education, reaching the top managerial elite before their 40th birthday. Those with a low level of inherited capital reach the top after they turn 50 years and, logically, have longer careers.

This three-dimensional structure, and particularly the important role of commercial capital in recruitment of Danish CEOs, could be a result of the larger commercial sector in this sample and in the Danish economy. This would hold if the sector of the corporation

as a supplementary variable were placed distinctively within the three-dimensional space. However, this is not the case. Industry, commerce, and finance are not distanced from each other by more than a 0.5 distance on the principal axis, allowing no valid interpretation of this deviation.

Cluster Analysis: The Pathway of Inheritors, the Organizational Personnel, Experts, and Salespeople

With the general structure of capital constructed, subgroups of distinct pathways can be constructed by cluster analysis to construct a typology (cf. Denord et al., 2011) of pathways to the top management in Denmark. Clusters of individuals have been identified by way of ascending hierarchical clustering of Euclidian distances within the three-dimensional space of individual career trajectories constructed through the SMCA (Le Roux and Rouanet, 2004: 106–15) identifying the partition with four clusters as the best fit. The four clusters are shown in Figure 3 and can be described ideally as follows:

- 1 *The inheritors (C1)* are characterized by high levels of organizational and inherited capital and relatively quick careers within a single corporation. Often sons of executives, born near the centre of the national field of power in Copenhagen, with a trainee background, a career start in management and foreign experience – typically less than seven years, but enough to acquire cosmopolitan capital (cf. Weenink, 2008), these men symbolize a sound character. A quarter (25) of the top CEOs are placed in this cluster. The inherited path is not uniquely characterized by the owners who inherited their position through financial control of the firm. Only seven (28%) of the CEOs in the inheritors' cluster are owners, and these seven account for half the total number of owners (14) in the study. Thus the majority of the inheritors do not follow this path as a result of material inheritance of ownership; instead, it is due to their ability to master the class-specific habitus.
- 2 *The organizational personnel (C2)* also have a high level of organizational capital but very little inherited capital. These men have worked their way to the top within one corporation and are, on average, seven years older than their peers before their appointment as top CEOs and have a significantly lower number of career changes. On average, their capital structure is slightly more tied to technical than commercial capital, both in general and in comparison with the inheritors. The label 'the organizational personnel' applies to 27 top CEOs.
- 3 *The experts (C3)* have high levels of technical capital, quick careers, authorships and PhDs. These men have been able to benefit from their merits in scholarly fields. It is also among these agents that we find the few career patterns that involve positions in the state bureaucracy or organizations and an educational background in economics in common with top politicians and bureaucrats – the characteristics of *pantouflage*. With parents without a particularly prestigious background, and with partners in academic jobs, it appears that this relatively rare trajectory – followed by only 14 CEOs – is similar to the path trodden by the highly scholarly qualified German CEOs and the elitist French CEOs.

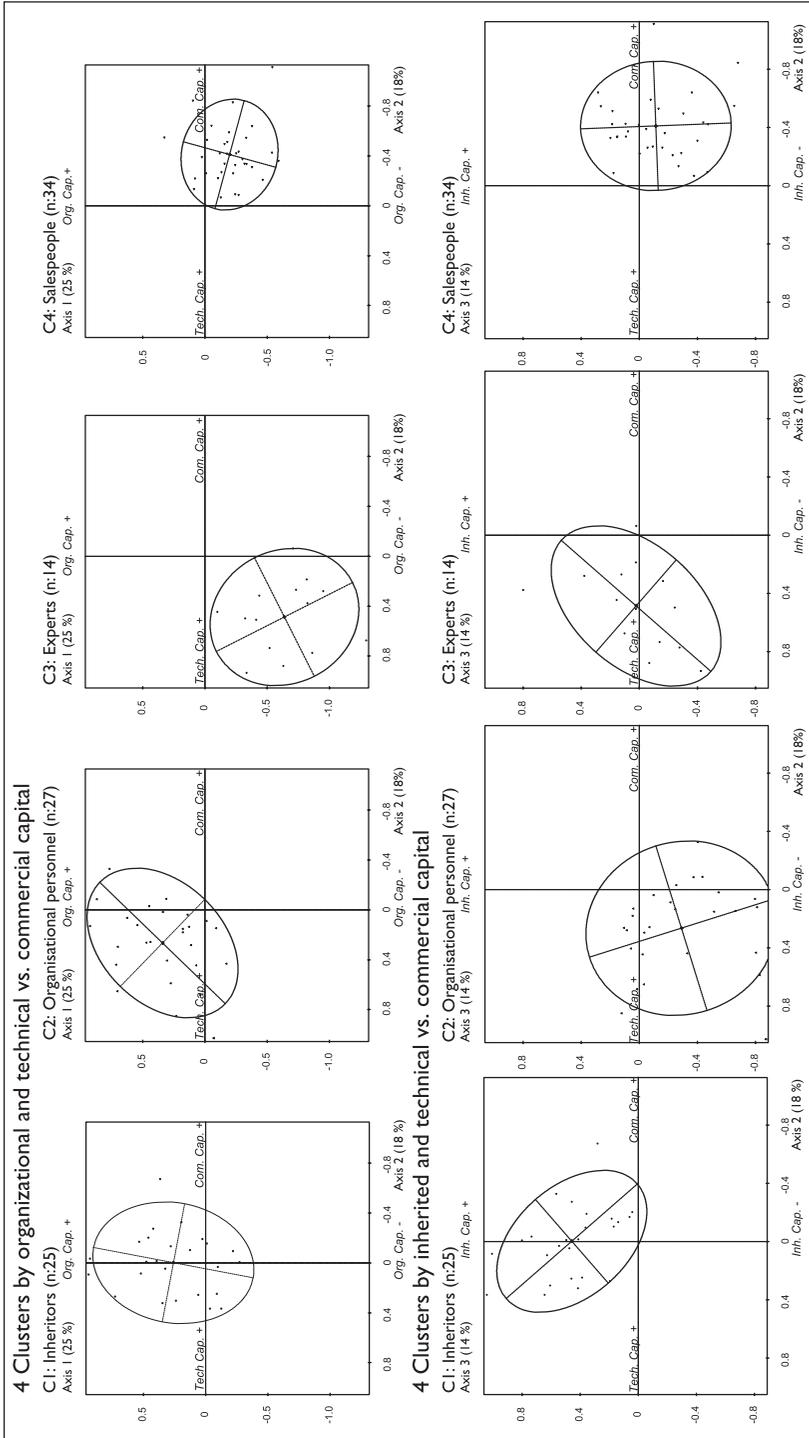


Figure 3. Cluster analysis, concentration ellipses of the four identified clusters.

- 4 *The salespeople (C4)* seem to have the most homogenous trajectory when looking at the concentration ellipses in Figure 3. It is also the most common of the four trajectories, followed by more than a third (34) of the top CEOs. Typically, these men have high levels of commercial capital, with a career start in enterprises, many career changes and a rural upbringing. Like the experts, these men have not spent many years in their current firm accumulating capital. However, they have spent their entire career in private businesses, usually without prestigious diplomas to catapult them to a certain level of the organizational hierarchy. Instead, they started their career in sales or marketing and gradually worked their way up through different enterprises and corporations. CEOs qualified by their commercial capital work in firms that are younger – the average age of their firms being 51 years – than the average of 82 years for all corporations included here. The firms managed by salespeople are also less profitable and less prestigious than the other firms, as seen by the lack of publicity, both in the number of press articles and books about the firm. These characteristics are correlated to other indicators of firm prestige such as members of other sub-elites on the board of directors and sheer economic size. In many ways these organizations offer a trajectory more compatible with the strategy of a newcomer to the field with dispositions from an upbringing in a self-employed milieu.

Discussion

Adding to Hartmann's (2007) three models of reproduction, we place the Danish business elite as being tied to the German case of both low elite circulation and low importance of elite universities or public schools. The cultural-technical capital acquired through university diplomas in general and postgraduate studies in particular appears to be specific for the German and French case rather than the Danish case. Like the British case, capital acquired through the economic field in Denmark is more important, with the important distinction that not only organizational capital, but also commercial capital qualifies for a position in top management. On the basis of a Specific Multiple Correspondence Analysis, it is possible to identify four clusters of career trajectories: the inheritors, the organizational personnel, the experts, and the salespeople.

Of these groups, only the 14 experts can be seen as legitimizing their power through capital acquired in the educational system. The lack of an institution of elite education thus implies a weaker position of cultural capital – and institutions that distribute it – within the business elite and perhaps within the Danish power elite as a whole. It is possible that the lack of elite schools can be attributed to the egalitarian ethos of the decommodifying, social-democratic Scandinavian welfare states (Esping-Andersen, 1990). Nevertheless, it may also be a function of the relatively small size of the Danish elite, which is therefore unable to sustain an elite school.

These findings emphasize the need for the use of Pierre Bourdieu's terminology of the social stratification of the elite in an economic and cultural fraction as a model of the logic behind 'the organic solidarity of the genuine division of the labor of domination' (Bourdieu, 1996: 263) rather than as a theory of the social ontology of elites in all

western nation-states. Thus the analysis follows Hjellbrekke et al. (2007) in showing how the forms of capital structuring the field of power vary across different nation-states depending on the particular strength of different institutions of reproduction. The integration of the corporate, political and military elite into a power elite in C. Wright Mills' (1956) analysis should likewise be interpreted as a theory on the effects of elite cohesion and not as a description of the paramount elite fractions across historical and national boundaries.

However, the reproduction strategies of the business elites tied to nation-state institutions are under considerable pressure because of the rise of transnational corporations and the ensuing integration of corporate elites into transnational communities, demonstrated by Carroll (2010). Even though the vast majority of the included corporations have some – or even all – of their activities located outside Denmark, only five CEOs were not born in Denmark. Of these, all have been tied to the Danish economic field for many years. Two started their career in Danish corporations or in Denmark more than 20 years prior to their current appointment. One married the heiress to the corporation he now heads. Two are Swedes and are thus familiar with the particular social games of the Scandinavian boardrooms. These findings follow the pattern found by Hartmann (2010: 315–16) in Germany and France. Furthermore, fewer than half the Danish CEOs have worked abroad, and, of the 47 who have, 36 were stationed abroad by their Danish parent corporation. While 24 of the 26 MBA degrees of Danish CEOs were acquired from business schools outside Denmark, which confirms that an international market for exclusive executive degrees taken during a corporate career has been established (see also Marceau, 1989), only six of the Danish-born CEOs have their university diploma, or parts of it, from abroad. While networks of corporate power, and the culture of business elites (cf. Sklair, 2001: 255–94), have gone global, access to them is still tied to local dynamics within the reproduction strategies of national business elites.

The exclusive social background of Danish CEOs and the specific trajectories of recruitment question the picture of the open nature of Scandinavian elites, cited below using the analysis of the Danish Power Study. A very particular and strong form of character still has to be formed to be considered top managerial material.

The social exclusivity of elites increases according to the size of the respective country [while] there are also specific national traditions and balances of power [...]. In the Scandinavian countries with their comparably egalitarian basic attitude and their relatively open educational system the social composition of elites is on average less exclusive than in countries with explicit institutions of elite education, a classical upper class, or a tradition as a great power. Hartmann (2010: 222)

The importance of this character can be seen by the fact that the reproduction of business elites is not tied solely to exclusive social background. Women also form a minority. In the Scandinavian countries, there are no more than 5 per cent of women in any of the business elites (Ruostetsaari, 2008: 163). Moreover, there are no more than two women amongst the 100 top managers in France, Britain (Maclean et al., 2006: 7) and Denmark. This suggests that explanations focusing on the more bodily acquired skills (such as mastery of the natural tone of voice, gesture and body language) that enable an individual to play the power games within the firms and the business elites (Bourdieu, 1996;

Hartmann, 2000; Mills, 1956; Zweigenhaft and Domhoff, 1998) can have great explanatory value for the stable reproduction of business elites.

The world economy was shaken by the financial crisis, and questions were raised about managerial legitimacy in the transnational corporations. When viewed from a national perspective, the qualifications and traits of the CEOs seem functional necessities of the managerial position. However, when compared across countries, the arbitrary nature of these requirements becomes apparent. If there were a universal requirement, it would be to have the established social background, which does not resonate well within a meritocratic ethos. A critical perspective on the historically established character of the CEO and its consequences for the quality and ethics of corporate governance is therefore required.

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1. Available through our website: <http://www.soc.ku.dk/dokumenter/additionaldata.pdf>

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2. Status and Integration in the Field of Power of Danish Chief Executives

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Abstract:

When assessing whether a CEO in a top firm is a powerful agent on the field of power it is not enough to look exclusively at the objective resources of the firm. It is essential to know the accumulated symbolic resources of both the firm and the CEO. We will demonstrate both theoretically and empirically that social capital within the field of power is a good indicator of the symbolic capital of the CEO. Only those directors that have symbolic capital on the field of power are able to influence the field of power directly. With the help of correspondence analysis, we map the distribution of symbolic and social capital among the 100 topmost CEO in Denmark. The analysis is based on prosopographical data from 2007 and finds a strong correlation between indicators of different forms of social and symbolic capital. These findings are used in a discussion of the size of the Danish field of power.

Keywords: Social Capital, Bourdieu, Multiple Correspondence Analysis, prosopography, Symbolic Capital, Economic Elites, The Field of Power

Introduction: The symbolic and social integration of chief executives within the field of power¹

Of course, the CEO of Danske Bank has power, but the position itself is not enough. It takes a respected person that people will listen to, and Peter Straarup is such a person. Michael Pram Rasmussen, Chairman of the Board of Directors of A.P. Møller – Mærsk, in Mikkelsen (2007:105, our translation)

You cannot tell whether a managing director is a part of the field of power, and thus one of the decisive players in the distribution of resources in society, simply by looking at his job position. Inclusion in the core of the field of power does not simply follow from the size of a company, or from the “performances” of a CEO. The distribution of contacts to the field of power and of influence within it, is mediated through a symbolic economy. The CEOs who have influence are the ones who are symbolically recognised by the other players within the field. In this article, we will argue that social capital plays a special role in the distribution of symbolic recognition within the field of power. By knowing the social capital of CEOs we can thus assess the degree to which they are included in the field of power.

The ability of a company to integrate their senior managers in the field of power can be of decisive importance for the company, the sector and the capitalist. Danish companies do not merely make decisions focusing on the behaviour of the markets or the disciplining gaze of the investors. According to Neil Fligstein (1996, 2002), business success is largely dependent on alliances with the state actors who create the framework of the game in the economic field. In the words of Ralph Miliband (1969:1), these agents are fighting ‘for the state's attention, or for its control’. Particular interests are universalised through the state.

However, as Pierre Bourdieu (2010) has shown, the state – and the field of power more generally – cannot be reduced to a superstructure, which merely reflects the economic basis and the division of power, as simplistic readings of Marx would. Instead, the connections through which economic

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organisations influence state bureaucracy and other institutions connected to the field of power, are borne by concrete individuals and relations, with their relatively independent dynamics. Both conservative and Marxist elite theories show how contacts are established through common class or educational backgrounds, and overlapping social circles, etc. (see e.g. Aron 1950; Miliband 1969). For a field theory-based analysis of the overlapping circles of the elites within the Scandinavian countries, see Denord et al. (2011).

Apart from these common features, Bourdieu's keen eye for the symbolic dimension of power helps us understand how these common features creates an integrated potential for action. When the CEOs of the largest companies master the broad elite culture, they demonstrate that they are not merely capable actors within the economic field, but personal carriers of a power resource that makes them central intermediaries between different forms of capital within the field of power. They become 'sound person'. Only by engaging in this symbolic economy of honour can CEOs win the favour of the rest of the field of power, and engage in relations of capital conversion. For this reason it is central to understand the criteria of inclusion within the circles of power (cf. Mills 1956). The struggles within the field of power largely concern the definition of legitimate forms of power (Bourdieu 1996:265) and thus there is not one fixed hierarchy of recognition and distribution of symbolic capital. Yet, when a person is invited to join a network, a board, or other spaces where powerful people are found, it seems like a symbolic consecration of the individual. Thus social capital can function as a measure of symbolic capital within the field of power. To be included means that to be recognized as an individual within the symbolic economy of honour of the field of power.

The relation between symbolic and social capital can be understood as structured by the Matthew effect (cf. Merton 1968). Access to the right social circles opens for symbolic recognition, which gives access to new social circles in turn. Symbolic and social resources are accumulated, and partake in a further process of accumulation of symbolic and social resources. This effect must not be understood tautologically as "you gain contacts because you are powerful and you are powerful because you gain contacts, but as processual. If agents gain a position with sufficient symbolic capital – or convert another form of capital – it gains the possibility of participating in the social and symbolic economy of the elite circles.

This article will attempt to throw light on this dynamic from a prosopographic study of the hundred highest-ranking CEOs in Denmark. The dynamics of the integration of the chief executives in the field of power is specifically interesting, because they administer the economic and organisational capital, which according to Bourdieu (Bourdieu 1986, 1996:274, 2005:194) makes them the representatives and

possessors of the dominant and most easily convertible form of capital within the field of power. For this reason, the relation between a company and its CEO's position is interesting: Which executives from what companies achieve social and symbolic capital within the field of power? Which differences are there in the forms of social and symbolic capital different types of CEOs – owners and managers – gain access to? How many chief executives are integrated within the field of power?

Initially, we answer these questions through a theoretical clarification of the role of social and symbolic capital within the field of power according to the works of Bourdieu and Mills. After a brief description of the data that forms the basis of this investigation, we analyse chief executives according to their relation to the field of power. Through a description of the allocation of royal recognition through orders and invitations, of positions on boards and in networks, connections to the state, politics and science, as well as their salaries and residencies, we arrive at a picture of the chief executives as a symbolically recognized and well-integrated group. The relations between these different indicators of symbolic, social and economic capital is investigated through specific multiple correspondence analysis. Through this investigation, we construct the space of social and symbolic capital within the field of power between Danish chief executives. We analyse this space with the key characteristics of the companies and the social background of the CEOs. The analysis results in an assessment of the coincidence between social and symbolic capital. Finally, we discuss the meaning of the Matthew effect for symbolic capital in relation to the size of the power elite in Denmark.

The field of power and circles of power

Bourdieu's and C. W. Mills' descriptions of power within the elites of western societies are quite similar (Burawoy and Von Holdt 2012). They both describe society as built up by hierarchically organised sectors, and the actors at the summit of these sectors (or fields) participate in a unifying and integrating field where the struggles over resources between sectors play out. Bourdieu speaks of a "field of power" and C.W. Mills (1956) of the "power elite" or "the higher circles of power".

Mills found that power in the USA is centralised around the spheres of the economy, military and state. Bourdieu found that in France the central contradictions in the elite is between the economic and cultural elite, see Figure 1. The struggles in the field of power decide the exchange rate between different forms of capital, yet they work towards integration:

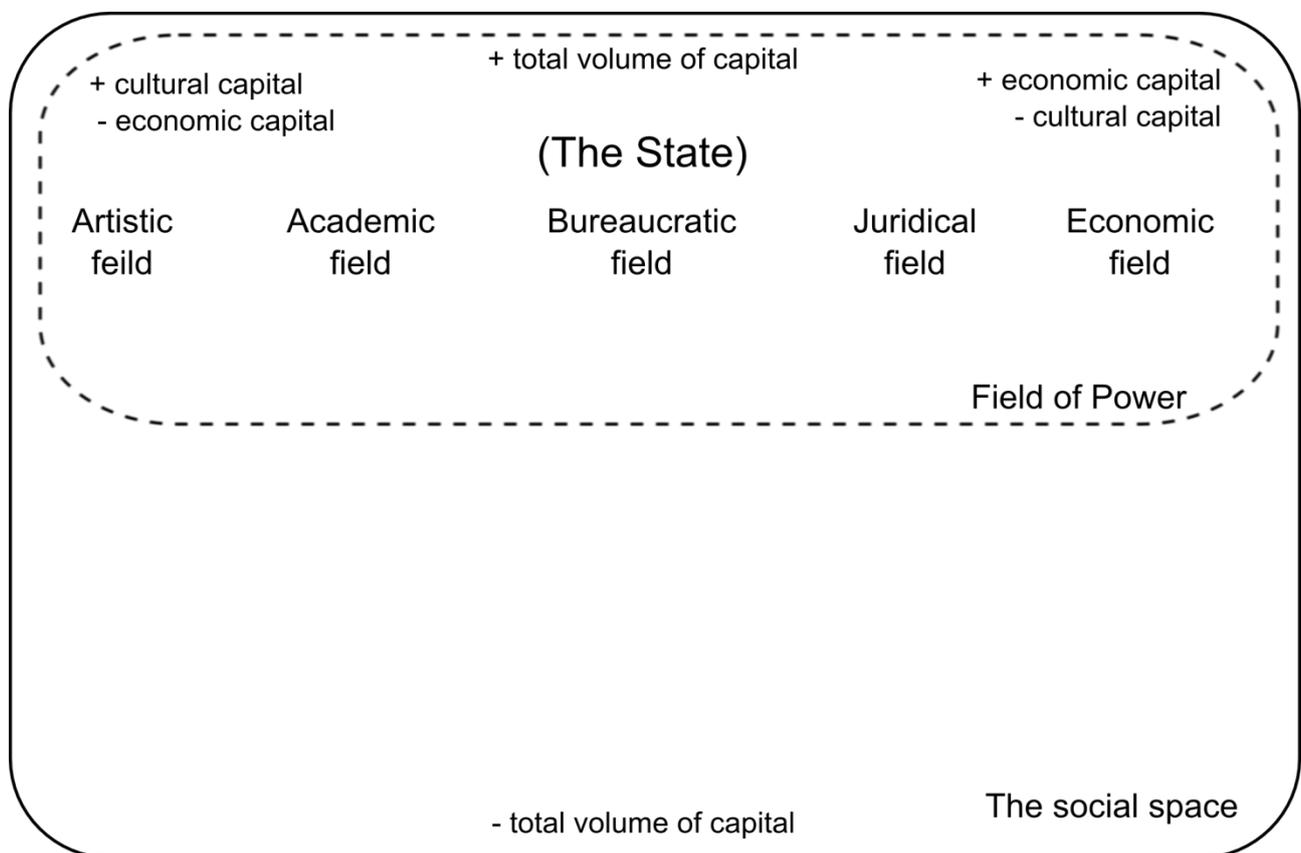
The existence of a plurality of partially independent principles of hierarchization sets a de facto limit to the struggle of all against all among the dominant. It fosters a form of complementarity which is the

basis of a veritable organic solidarity within the division of labour of domination. Thus the couple of those who act and those who speak is at once antagonistic and complementary, the division of labour of domination being accomplished within and through the conflict which links them.

Bourdieu (in Wacquant 1993:25)

Through these struggles, a form of meta-capital arises in the field of power (Hansen and Hammerslev 2010). This meta-capital is crucial for the determination of the exchange rate between the forms of capital, and the struggles over this rate is a struggle over the state and the definition of the state. That the state becomes the point of focal point of the power struggles in the top of society is a result of the state's function as 'the central bank of symbolic credit' (Bourdieu in Wacquant 1993:39). The state's recognition of the different types of capital is necessary because, according to Bourdieu (1996:265) no power is satisfied by existing in its raw form, and because the recognition of the state can lend particular interests a universal form.

FIGURE 1: THE FIELD OF POWER



The field of power following Wacquant (2005:143) and Bourdieu (1996:267).

The struggles are carried out by individuals who, as a result of the mechanisms of reproduction that underlie the field of power, are already disposed to the structure of the field. Thus, the struggles take

place between individuals who by and large recognise the existing order. Therefore, the results of the struggles within the field of power will not radically alter the power relations between the sectors (Aron 1950:10). According to Aron, such changes demand a radical break with the composition of the elite and with its the mechanisms of reproduction. From this follows that any study of the elite and similar closed circles must have an eye for the ways in which people gain access to the elite, and what the criteria of access do in terms of creating a more or less uniform elite character. We will now briefly summarise the dynamics of reproduction (see Ellersgaard and Larsen 2011) in relation to the position of chief executives before we explain what significance mechanisms of reproduction have for the access to social and symbolic capital within the field of power.

Habitus and character

The understanding, that the field of power is integrated organically by opponents mutually recognising each other's power resources (capital forms) can be supplemented by empirical studies that show a significant homogeneity in the culture and opinions of the elite (Bauer and Bertin-Mouroit 1999; Bürklin and Rebenstorf 1997; Gulbrandsen 2005; Hartmann 2000; Maclean, Harvey, and Press 2006; Statens Offentliga Utredningar 1990). The majority of the 100 chief executives share an exclusive social background (Ellersgaard and Larsen 2011), just as they did in 1955 (Hansen 1964). In the larger industrialised countries, the social recruitment of the elite has remained exclusive during the past 250 years (Kaelble 1980:415–6). At the same time, homogeneous class conditions tie the actors in the field of power together. They all share relatively high incomes, similar housing conditions, stable employment and the opposition to the lower ranking employees. These cultural and structural conditions make possible a certain “mechanical” solidarity based on homogeneity. Mills points out the homogeneity of the elite in his description of the routes that give access to the partially overlapping circles that make up the power elite:

All the structural coincidence of their interests as well as the intricate, psychological facts of their origins and their education, their careers and their associations make possible the psychological affinities that prevail among them, affinities that make it possible for them to say of one another: He is, of course, one of us. And all this points to the basic, psychological meaning of 'class consciousness'.

Mills (1956:283)

This solidarity is not only an expression of similarities in class background and education, but to a large extent a result of the mechanisms of selection that let new individuals enter the decisive circles (Mills 1956:281). These pose clear demands of what Mills terms the character of chief executives (which can be understood as derived from their symbolically dominating habitus and hexis, see below).

The fit survive, and fitness means, not formal competence – there probably is no such thing for top executives positions – but conformity with the criteria of those who have already succeeded. To be compatible with the top men is to act like them, to look like them, to think like them: to be of and for them – or at least to display oneself to them in such a way to create that impression

Mills (1956:140)

Among CEOs, it is easier for those who have the right class background to gain inclusion in the ‘best’ circles (Hartmann 2000; Marceau 1989:6; Mills 1956:142). Even though the ‘right’ character is inherited to some extent, it is more important to understand that character is shaped by the dominant criteria of recognition. One will therefore find a partial correspondence between the relations of power between different forms of capital within the field of power and the criteria of recognition which shape individuals in the highest ranking positions (in this case chief executives). Before they enter into the field of power the dominant actors are therefore already disposed to recognise the existing order, because this was a criteria of their inclusion.

‘We instinctively recognize the ones who are and the ones who aren’t,’ a top industrial leader states, adding that ‘when you’re part of the establishment, you don’t talk about the establishment.’ It is obvious that ‘there are truly no men of the left in the establishment’ but here again it all comes down to the way one behaves; and [...] people have nothing but scorn for the “trouble-makers” who in their progressiveness, betray their caste and give the game away.

Bourdieu (1996:317)

Inclusion within the field of power can therefore be understood as a result of several different selection processes which produce a homogeneous, integrated elite within a high degree of mutual solidarity. An executive’s inclusion within the field of power is not directly inherited, nor determined solely by the strength of his or her organisation. Therefore, the actors with most economic and academic capital do not necessarily become the most powerful players within the field of power². The field of power cannot be reduced to simple relations of strength or “nobility”, but must be understood as a result of a symbolic economy of honour, which benefits people and classes with certain characteristics. In the following, we will clarify the relation between social and symbolic capital in the field of power. Through this, we will attempt to show that symbolic capital in the form of reputation and honour is the dominant form of capital within the field of power.

² In the case of academic research this is exemplified by the eccentric top-physicist.

Symbolic and social capital in the field of power

The concept of symbolic capital springs from Bourdieu's analyses of the Kabyle economy of honour. The symbolic economy of honour masks the "raw" economy in such a way that the material conditions do not appear "too visibly".

Symbolic capital, a transformed and thereby *disguised* form of physical "economic" capital, produces its proper effect inasmuch, and only inasmuch, as it conceals the fact that it originates in "material" forms of capital which are also, in the last analysis, the source of its effects.

Bourdieu (2007:183, italics in original)

Symbolic capital reflects the other forms of capital, but it cannot be reduced to them, and it functions as a euphemism for them. In this sense, symbolic capital can be understood as the legitimate form of other forms of capital.

If belonging to the establishment is so closely linked to the seniority of one's establishment in business, this is undoubtedly because symbolic capital consisting of recognition, confidence, and, in a word, legitimacy has its own laws of accumulation that are distinct from those of economic capital.

Bourdieu (1996:318)

This legitimate form of capital is a result of the actor's display of the necessary symbols and ability to maintain relations of gift giving. Over time this transforms the actors forms of capital to specific form of trust that Bourdieu terms symbolic capital. As Bourdieu (2007:181) writes:

Once one realizes that symbolic capital is always *credit*, in the widest sense of the word, i. e. a sort of advance which the group alone can grant those who give it the best material and symbolic *guarantees*, it can be seen that the exhibition of symbolic capital (which is always very expensive in economic terms) is one of the mechanisms which (no doubt universally) make capital go to capital.

Here Bourdieu draws a clear parallel to the social capital, which in its most pithy definition is *capital per proxy*, but which is dependent on the symbolic credit the individual has built up within the group he partakes in (Bourdieu 1986:247–8). Thus, it is not possible to understand social capital without the symbolic capital which legitimates the activation of a connection. It is through the exchange of resources, which in the form as presents become symbolic forms of recognition, that a group maintains itself and marks its boundaries (Bourdieu 1986:247).

However, social connections can also function as symbolic capital. By having publicly known relations to individuals with legitimated forms of capital, an actor's own capital gains a seal of approval and its amount is affirmed. These mechanisms are specifically relevant within the field of power where the struggles centre on the exchange relations between different forms of capital. When one wants to

assess the value of a sub-field's forms of capital one of the best indicators of the exchange rate between, for instance, ecclesial, academic and economic capital is whether a specific form of capital is included within prestigious networks or not. In other words, if others in the elite for instance think that a bishop's title is powerful and legitimate enough, they allow the bishop space to speak within the closed circles. At the same time, the membership and amount of symbolic work an actor has invested in the class indicates his legitimacy. These mechanisms are signs that symbolic capital in the form of social capital are strong mechanisms of differentiation within the field of power in the same way that social capital is crucial in deciding whether a manager rises to the position of chief CEO (Harvey and Maclean 2008:111).

The Matthew effect

We will now briefly look at one of the central "laws" of the accumulation of symbolic capital, the Matthew effect (or cumulative advantages), as it is described by Robert K. Merton (1988:606):

The concept of cumulative advantage directs our attention to the ways in which initial comparative advantages of trained capacity, structural location, and available resources make for successive increments of advantage such that the gaps between the haves and the have-nots in science (as in other domains of social life) widen until dampened by countervailing processes.

The Matthew effect, which takes its name from the gospel of Matthew, describes the process through which all forms of resources are concentrated exponentially until the accumulation is stopped by countervailing tendencies. Those, who already have much of a dominant form of capital (e.g. scientific reputation), have more easy access to those other forms of capital, which makes it possible to produce more of the dominant form of capital. From this follows that resources and capital will grow in tandem in a upward moving spiral.

The Matthew effect of symbolic capital is a result of the collective character of symbolic capital. This means that a network, institution or title gain status according to the collective capital of its members (Bourdieu 1986, 1996:79–81, 201). This means that a reputable member will be elevated by the other members, and that they will be elevated by him. A network is prestigious because it only lets in the finest members, and the members have prestige because they are part of a prestigious network. This almost tautological circle of mutual recognition plays a part in creating vast inequality in the concentration of symbolic capital, and it can function as an efficient barrier between the executives who are a part of the establishment and those that are not. Thus, according to Mills (1956:282), it also shapes the individual's character to be placed in this circle of mutual recognition:

In these diverse contexts, prestige accumulates in each of the higher circles, and the members of each borrow status from one another. Their self-images are fed by these accumulations and these borrowings, and accordingly, however segmental a given man's role may seem, he comes to feel himself a 'diffuse' or 'generalized' man of the higher circles.

As Mill indicates, the mutual giving of status has an integrating effect. Those that have received much from the status-giving network feel a certain loyalty toward those that are the cause of their symbolic resources. If the Matthew effect applies to the accumulation of symbolic capital within the Danish field of power, we have to expect a rising concentration of capital culminating in a small group possessing the major part of the symbolic resources.

While the field of power integrates through conflict and division of labour, as we have seen, it is also kept together by homogeneous habitual dispositions and mechanisms of reproduction. Because the struggles in the field of power concern the legitimation of the forms of capital, symbolic capital – the legitimating capital – is decisive in the field of power. Due to the kinship between symbolic and social capital, networks come to function as a central form – and indicator – of symbolic capital within the field of power (De Nooy 2003). The actors mutually legitimate their symbolic capital within prestigious networks. We assume this leads to a Matthew effect, through which capital is not accumulated linearly, but exponentially.

Data and methods

The basis of the present investigation is prosopographical data from publicly available sources, including Kraks Blå Bog, Greens Erhvervsinformation, OIS, FOA, CVR and an assortment of journalistic portrait articles found through the common archive of Danish newspaper articles, Infomedia. Our selection of data sources and the construction of variables and indicators draws on the designs of earlier prosopographical studies (see e.g. Bourdieu 1996; Hjellbrekke and Korsnes 2009a; Maclean et al. 2006)³.

We have included chief executives from 82 companies based on the size of the company's turnover and staff. The lower limits of these are set at 5 billion Danish Kroner (760 million USD) and 5.000 employees, respectively. Further, financially large companies are only included if they have more than 500 employees. In this way, the investigation captures both companies with strong financial and organisational capital (Bourdieu 2005:190). From these 82 companies we have collected data covering such things as: turnover, size, number of employees, age, ownership structure and publicity. We have

³ See Ellersgaard and Larsen (2010:147–57) for further details.

drawn data from the companies' annual financial statements from 2004 to 2007.

For the largest companies such as A.P. Møller - Mærsk, Danske Bank and Arla, we have not only investigated chief executives but also an additional 12 board members. Finally, we have included six owner-managers, all former CEOs who are now chairs of the boards of the companies they own at least a significant portion of. Thus Lars Larsen from JYSK and Tom Kähler from Rockwool have been included. This gives us a total population of 100 chief executives.

The construction of the space is undertaken through geometric data analysis (see Andrade, Karlson, and Bæk 2011; Denord et al. 2011; Hjellbrekke and Korsnes 2009b; Lebaron 2009) in the specific form of *multiple correspondence analysis* (Le Roux and Rouanet 2004, 2010). This allows us to include individuals, for whom we do not have information on all variables, in the construction of the spaces⁴. In this way we can identify the “hidden relations” in the data (Jæger 2006:52) using statistics in a way that does not break with, but lies in extension of Bourdieu's relational perspective on the social (Bourdieu, Chamboredon, and Passeron 1991:251; Broady 1988). The method is thus not only descriptive, but also capable of uncovering the structures that are generative of strategies within the field (Bourdieu 2005:102–3). In this way, correspondence analysis can be used to identify capital forms within the field of power (Bourdieu 1988, 1996, 2005; Hjellbrekke and Korsnes 2009b).

The prestige of the company

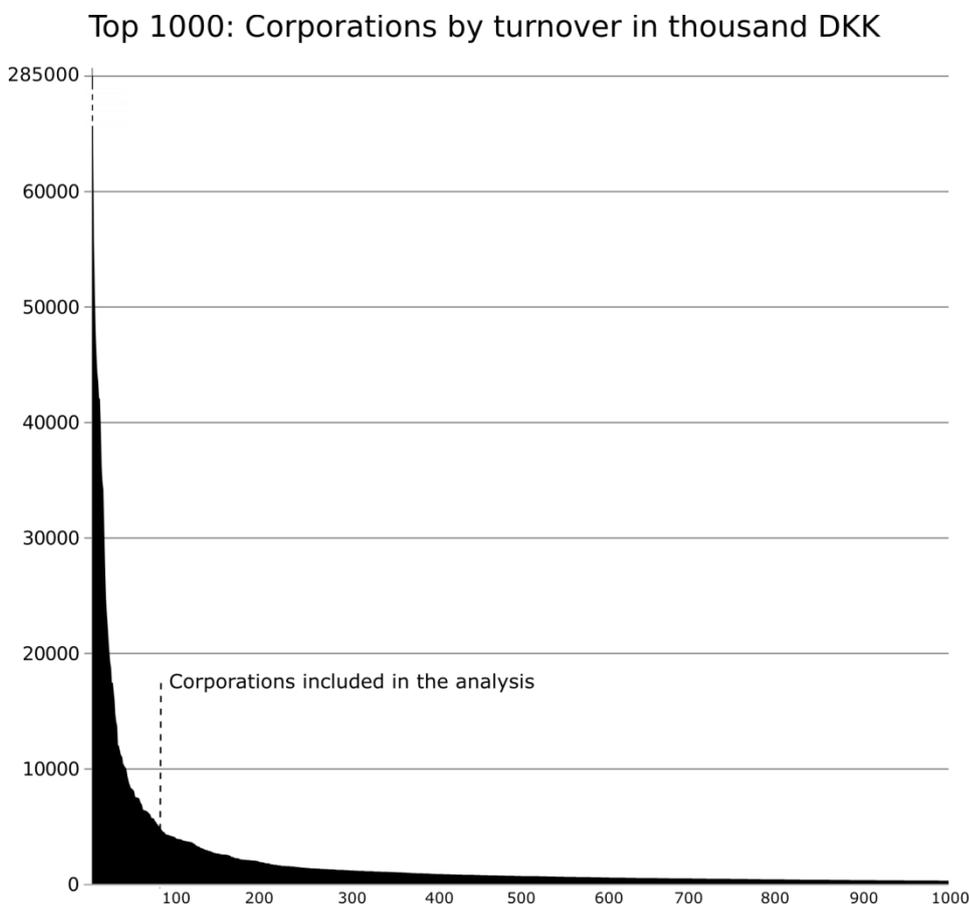
In order to investigate the relation between the integration of an executive in the field of power and the organisational capital of his company, we will now sketch out the field of large companies today including the relation between size and prestige. To describe how chief executives can operate within the field of power it is essential to understand how large companies are given prestige.

The Danish economy is largely characterised by its few, large actors. As we see in figure 2, the concentration of capital in Danish companies follows an exponential curve. This shape is a product of different strategies of consolidation, which have accelerated from 1970 until today (Iversen 2005). The result is the structure seen in figure 2, in which the largest five companies have a turnover 25 times (607

⁴ The analysis conducted with the help of the Soc.ca-package to R (Larsen, Andrade, and Ellersgaard 2012). The code of the package is based on Michael Greenacre's "ca" package (Greenacre and Nenadic 2007), but it has a more user-friendly interface, with new graphic functions and relevant help-features. Methodologically and mathematically the package implements Brigitte Le Roux's specific correspondence analysis (Le Roux and Rouanet 2004, 2010). The package can be downloaded at: <https://github.com/Rsoc/soc.ca/>

billion kr.) as high as the five smallest of the 82 companies included in this analysis. These 82 companies account for 72% of the total turnover of largest 1000 companies in Denmark, and the 10 largest companies alone account for 33% of the total turnover. Thus, there are significant differences between the 82 companies, which have been included in the analysis. Even though the population is small, it captures a large part of the total economic activity in the largest Danish companies. If we had included more companies, it would have been hard to argue that the CEOs were faced with comparable challenges. For instance, there is a huge difference between managing the company with the largest organisation, ISS, with its more than 400.000 employees, and managing the company with the smallest in the investigation, Danske Spil, which with its 261 employees has several thousand times fewer employees than ISS. Overall, however, the absolute top of Danish companies have been included in the analysis, and the power potential of their directors is significant.

FIGURE 2: THE DANISH TOP 1000 CORPORATIONS BY TURNOVER



However, in order to understand the differences in the allocation of symbolic capital among chief executives it is not enough to look at the size of companies. One must take into account the symbolic

resources of the company, what we call a company's *prestige*. The prestige or reputation of a company is an important factor in deciding whether a CEO is included and decorated by the Royal Family. Prestige, i.e. the symbolic strength or the brand of the company, is an aggregate expression of the company's size, publicity, fame, the industry's importance within the national economy, the age and ownership structure of the company, and much more. However, even though many different factors can boost a company's prestige, much evidence suggests that we are dealing with a Matthew effect in which the different factors grow together (see our analysis of the space of top companies in Ellersgaard and Larsen 2010:134–5).

In their factor analysis, Rose and Thomsen (2004) have found that different types of reputation can be reduced to one form, in which an increase of one type leads to an increase in another. At the same time, they demonstrate the probability of investors buoying reputable companies, making them less vulnerable to market fluctuations or bad financial statements. Historically leading companies such as EATC [Danish East Asiatic Trading Company] can draw on this symbolic capital for decades. With a turnover of DKK 4.4 billion EAK it is one of the absolutely smallest companies in this analysis, yet it was mentioned in 8,081 articles within four years, which places it as number 32th in terms of publicity. Just as a bad press story need not have any lasting effect on a company's reputation, swings in economic performance need not affect its prestige.

The symbolic economy regulating the prestige of companies moves according to its own logic, which only partially follow the economic performance of companies. For instance, the role a company plays in the national self-understanding is important, e.g. in relation to the strategic interests taken by the state in certain companies. This is especially the case for export companies that bring foreign currency to Denmark, thus helping the Danish trade balance (Iversen and Andersen 2008:316ff). The interests of the state become the interests of the population, which is reflected in terms of publicity. For instance, export companies are mentioned in books thrice as often as home-market companies (Ellersgaard and Larsen 2010:117). An executive's possibilities of achieving social and symbolic capital in the field of power will follow the company's prestige and not merely its size. In the following correspondence analysis, we will compare the distribution of symbolic and social capital among CEOs with the companies' distribution of size and prestige.

The forms of capital

This investigation will look at the differences between chief executives, but it is important to remember

that this group is extremely homogeneous. Of the 100 chief executives two are women, six are from working class families, five are non-Danes, 92 are married, 54 have master-degree level education and 41 had their first professional position in management and leadership⁵. The fact that this group is so exclusive might lead us to expect that there will not be large differences in the amount of symbolic resources each CEO has achieved.

However, as we will see in the following table and correspondence analysis, the distribution of the different forms of social capital in fact characterised by significant unevenness. In the following, we will look at those indicators that play an active part in the construction of the field. Table 1 is organised in headings (see Lebaron 2008), of which each capture the recognition of different parts of the field of power. The table also shows how large a contribution the different modalities and variables make to the two first dimensions in the correspondence analysis. Most of these measures have a mainly symbolic character and are therefore not direct expressions of the power resources of the CEO. At the same time, a variable is rarely expressive of symbolic capital alone. The aim of the following run down of the table is to give the readers a detailed insight into the forms of capital and in how they relate to the field of power.

TABLE 1: CONTRIBUTIONS OF ACTIVE VARIABLES¹

	1 st axis (%)	2 nd axis (%)	Active indivi- duals	All indivi- duals
<i>Publicity and biographies</i>	<i>16.4</i>	<i>3.4</i>		
Articles: 0-10	2.3	1.9	19	36
Articles: 50-300	0.2	0.0	33	44
Articles: more than 300	4.5	1.4	20	20
<i>Total</i>	<i>7.0</i>	<i>3.3</i>	<i>72</i>	<i>100</i>
Biographed	8.5	0.1	7	7
Not biographed	0.9	0.0	65	93
<i>Total</i>	<i>9.4</i>	<i>0.1</i>	<i>72</i>	<i>100</i>
<i>Royal recognition</i>	<i>16.2</i>	<i>15.1</i>		
Danish decoration	4.6	5.6	23	23
No Danish decoration	2.1	2.6	49	77
<i>Total</i>	<i>6.7</i>	<i>8.2</i>	<i>72</i>	<i>100</i>

¹ The average contribution per modality is 1.8%.
(continued from previous page)

⁵ For an international comparison of the population, see (Ellersgaard, Larsen, and Munk 2013).

	1 st axis (%)	2 nd axis (%)	Active indivi- duals	All indivi- duals
Foreign decoration	1.5	5.8	10	10
No foreign decoration	0.2	0.9	62	90
<i>Total</i>	<i>1.7</i>	<i>6.7</i>	<i>72</i>	<i>100</i>
Royal invitation	4.3	0.1	32	32
No royal invitation	3.5	0.1	40	68
<i>Total</i>	<i>7.8</i>	<i>0.2</i>	<i>72</i>	<i>100</i>
<i>Directorates and board memberships</i>	<i>23.7</i>	<i>27.1</i>		
VL groups: 1, 3 or 46	1.5	1.2	23	23
VL groups: Not 1, 3 or 46	2.1	2.5	23	23
VL groups: Not member	0.0	6.4	26	54
<i>Total</i>	<i>3.6</i>	<i>10.1</i>	<i>72</i>	<i>100</i>
Leader of the year	6.1	0.4	10	11
Not Leader of the year	1.0	0.1	62	89
<i>Total</i>	<i>7.1</i>	<i>0.5</i>	<i>72</i>	<i>100</i>
Top networks: Samtalegruppen	5.5	2.0	5	5
Top networks: Netværket	0.6	5.7	7	7
Top networks: Not in top networks	0.9	1.5	60	88
<i>Total</i>	<i>7.0</i>	<i>9.2</i>	<i>72</i>	<i>100</i>
Board memberships: +4	0.7	1.5	9	11
Board memberships: 1-3	0.4	0.4	44	55
Board memberships: None	0.2	0.0	19	34
<i>Total</i>	<i>1.3</i>	<i>1.9</i>	<i>72</i>	<i>100</i>
More than one membership of other top corporate board	0.5	3.7	7	7
One membership of other top corporate board	2.8	0.5	15	15
No memberships of other top corporate board	1.4	1.2	50	78
<i>Total</i>	<i>4.7</i>	<i>5.4</i>	<i>72</i>	<i>100</i>
<i>State, politics and science</i>	<i>13.9</i>	<i>21.5</i>		
Scientists on own board	1.5	2.9	15	18
No scientists on own board	0.4	0.8	57	82
<i>Total</i>	<i>1.9</i>	<i>3.7</i>	<i>72</i>	<i>100</i>
Politicians on own board	0.0	2.8	14	15
No politicians on own board	0.0	0.7	58	85
<i>Total</i>	<i>0.0</i>	<i>3.5</i>	<i>72</i>	<i>100</i>
Denmark-America foundation: Member of the Board	1.8	1.0	29	29
Denmark-America foundation: Corporation member	0.5	0.6	16	21
Denmark-America foundation: Not member of the Board	3.8	2.5	27	50
<i>Total</i>	<i>6.1</i>	<i>4.1</i>	<i>72</i>	<i>100</i>
<i>(continued from previous page)</i>				
Position in scientific institution	2.4	5.9	12	12
No position in scientific institution	0.5	1.2	60	88
<i>Total</i>	<i>2.9</i>	<i>7.1</i>	<i>72</i>	<i>100</i>

	1 st axis (%)	2 nd axis (%)	Active indivi- duals	All indivi- duals
Position in state commission	2.5	2.6	12	12
No position in state commission	0.5	0.5	60	88
<i>Total</i>	<i>3.0</i>	<i>3.1</i>	<i>72</i>	<i>100</i>
<i>Corporation and residence</i>	<i>29.4</i>	<i>32.9</i>		
CEO more than 10 years	1.8	4.8	23	27
CEO 5-10 years	0.6	1.0	23	35
CEO less than 5 years	4.0	1.2	26	38
<i>Total</i>	<i>6.4</i>	<i>7.0</i>	<i>72</i>	<i>100</i>
Salary: +11 mio. DKK	4.6	2.7	7	10
Salary: 10-11 mio. DKK	1.2	1.8	13	13
Salary: 6-9 mio. DKK	0.0	2.1	12	21
Salary: 3.5-6 mio. DKK	3.5	0.2	20	28
Salary: less than 3.5 mio. DKK	0.1	4.9	8	10
<i>Total</i>	<i>9.4</i>	<i>11.7</i>	<i>60</i>	<i>82</i>
Residence: Affluent Northern Copenhagen	0.8	3.5	27	41
Residence: Central Copenhagen	0.3	0.1	10	12
Residence: Copenhagen suburbs	0.2	0.2	7	12
Residence: Århus and Aalborg	2.1	0.0	8	9
Residence: Provincial cities	0.2	1.4	8	11
Residence: Estates and summerhouse	3.2	5.5	9	11
Residence: Abroad	0.9	0.0	3	4
<i>Total</i>	<i>7.7</i>	<i>10.7</i>	<i>72</i>	<i>100</i>
Real Estate: +12 mio. DKK	4.5	0.3	12	12
Real Estate: 8-12 mio. DKK	0.0	2.3	19	24
Real Estate: 3.5-8 mio. DKK	0.2	0.2	31	48
Real Estate: Less than 3.5 mio. DKK	1.2	0.7	7	12
<i>Total</i>	<i>5.9</i>	<i>3.5</i>	<i>69</i>	<i>96</i>

Publicity and biographies

As we have pointed out earlier, there are vast differences in the total capital of the different companies in our investigation. The exponential and monopolistic character of these differences reappear among executives. Thus, even within an extremely elitist group such as the 100 chief executives there are distinctive differences in symbolic recognition. As Table 1 shows, publicity is very unevenly distributed. Whereas most executives are mentioned in more than 50 articles in a year, very few CEOs have had their biographies written. Largely, the amount of publicity depends on the PR strategies of the companies. For instance, listed companies and their CEOs are generally much more visible. A strongly

networked and publicly known executive can also contribute to drawing attention to his company⁶. Yet it is important to remember that companies actively support the public profile of their CEO. Whereas articles are part of the daily news consumption circle, biographies are reflect the longer sales horizon of publishes. Biographies thereby capture different assessments of the executives, stressing the gravity, history and distinctive features of their subjects. It is thus largely the most important companies' managers or owners, who have their biographies written. This publicity can be a resource because it confirms the importance of the CEO: if he is famous, he unavoidably becomes a figure to reckon with. It might be expected that "too much" publicity will be a liability within this space, but as we will see this is not the case. This is due to the connection between publicity and company prestige, and the fact that publicity is seen as a condition for the CEOs of the largest companies.

Royal recognition

Royal recognition reflects the executive's connection to and recognition within a certain high bourgeois elite circling the Danish Court (Maclean et al. 2006:182). The Royal Family gives invitations and orders based on a judgement of the CEOs character and the company's prestige. Because it is state ministries who nominate executives, orders are to some extent an expression of the state's assessment of the character of the CEO, the company, and its national importance⁷. It is worth exploring to what extent the Royal Family functions as one of the central gatekeepers to the most powerful circles in Denmark, and if they control the access to a Danish equivalent of the French "establishment" (Bourdieu 1996:315ff). As seen in table 1, only a minority of CEOs are found worthy of the different forms of symbolic recognition given by the Royal Family and foreign states.

Executives and board members

In table 1, we see different forms of professional networks and boards. These networks have the double character of exclusive groups: they are both symbols and resources. Because the time of

⁶ A good example is the difference between the two insurance company CEOs Stine Bosse of TrygVesta and Henrik Ramlau-Hansen of Danica. Despite great similarities in the size, publicity and business profiles of their companies, Ramlau-Hansen was personally mentioned 45 times, while Bosse was mentioned 438 times, and one of the only eight CEOs to have their biographies written.

⁷ However, there is also an element of social networking in the granting of orders and invitations, in which the CEOs who maintain relations with the Court are given more recognition as a result of personal friendships.

powerful individuals is a naturally scarce resource, to be given the time and attention of a chief CEO can raise your status (Goffman 1951:299). When a social relation becomes known, e.g. through official membership lists, the capital of the individuals is concretised. The symbolic value of membership follows from the total capital composition of the involved parties. A good example are the VL-groups who mainly count CEOs among their members, but also permanent secretaries of government ministries, professors, Vice-Chancellors, journalists, etc. These groups are closed career networks, and the old members pick new members based on their weight and personal characteristics. The most prestigious VL-groups are presumed to be 1, 3 and 46, where group number 3 counts people such as Niels Smedegaard Andersen (A.P. Møller - Mærsk), Karsten Dybvad (Confederation of Danish Industry), Karsten Ohrt (National Gallery of Denmark), Maria Rørbye Rønn (Danish Broadcasting Corporation) and Ove Ullerup (Lord Chamberlain). The VL-Groups thus reflect inclusion in the networks that integrate across the field of power. Contrary to networks (not only VL, but also *Netværket* and *Samtalegruppen*), boards of directors have decision-making powers. To entrust an actor with influence over a company is an expression of a very high level of trust and integration. The composition of boards of directors is therefore often used as a measure of the level of integration of the elite (Christiansen, Møller, and Tøgeby 2001; Gulbrandsen et al. 2002; Hjellbrekke et al. 2007; Schøtt 2003; Scott 1991a; Vedres and Stark 2010). In the study of boards of directors there are many pitfalls in identifying the central form of membership.

Most chief executives have positions on boards, but they rarely gain access to the boardrooms of other high-ranking companies. Almost one fourth of the chief executives are members of the three most prestigious VL-groups, while more informal network such as *Netværket* and *Samtalegruppen* are reserve for a small minority. Most forms of social capital within the field are only bestowed on a minority of the CEOs. The question, then, is if different CEOs are considered suited for specific board posts, or if these are concentrated on the hands of a smaller group of especially integrated chief executives.

State, politics and science

In figure 4, we see how many of the executives who have been able to successfully integrate across different elites. Such integration is expressed most clearly in the small number of chief executives who have been given posts in public commissions or who have politicians in the boards of their companies. These are the executives and companies that are recognized by the rest of the elite as having sufficient capital to be tied more closely to, for instance, the state elite. This integration is, as can be seen,

relatively rare. On the other hand, it is a sign of exclusion if an executive or company is not represented in the *Denmark-America Foundation*⁸. A strong relation to the state can be seen as a consecration of the executive, which identifies him as a representation of interests and opinions that are valid beyond his specific company. Such a relation makes the CEO a representative of the economic field in general.

The company and the home, economic recognition and position

A CEO's choice of residency also mirrors his connection to the field of power. When an executive settles in Northern Copenhagen, close to the rest of the Danish elite (Christiansen et al. 2001:233), it is often in the search of the opportunities of social integration that are connected to such an exclusive address:

The importance attached to place of residence can be understood not only in the value attached to one's address, one's sign of nobility among others, but also in the importance that being at the very heart of "society" takes on for one's social life (parties, dinners, encounters).

Bourdieu (1996:331)

The importance of the a centrally located home is also shown in a study of friendships within the French business elite (Kadushin 1995), which found that friendships are often made between the actors that live near to one another in the prominent quarters of Paris, a finding that resonates with Mills' (1956:47) description of the urban elite.

We also see that most common habitat of CEOs is the most prestigious part of of Northern Copenhagen, the so-called "Whiskey Belt". Often the executives who live elsewhere are employed by companies with very strong regional ties, such as Lego, Grundfos, Danfoss and Arla. The location of their homes is a reflection of company owners' strong preferences and roots in certain areas.

The size of a residence does not only reflect the economic capacity of an executive, but also his position in the field of tension between owners and managers. The owners can allow themselves a more extravagant life style than the more humble managers can. This is expressed both in salaries and economic capacity. A high salary functions as a signal for the company and the CEO. It gives the CEO a high position in the economic field, and it is perceived as "natural" that the largest companies pay the

⁸ DAF's board of directors bring together leading figures within the state, universities and industry.

highest salaries and have the most valuable executives. However, as with the character of the residence, an executive rarely makes enough on his salary to make the qualitative shift in economic capital, ‘the big jump’ (cf. Mills 1956:110–1) into the same economic league as the owners.⁹ In the choice of address, we again see a fusion of symbolic and social capital where the address with the largest symbolic capital also becomes that which provides the best opportunities for accumulating social capital. The residence constitutes a rare opportunity for converting economic capital to other forms of capital. In Danish society, the choice of address guides a number of other choices concerning strategies of reproduction. When you choose a neighbourhood, you also choose the classmates and day care of your children, and much more. Thus, the choice of address reflects habitual dispositions of the elite to a marked degree.

Correspondence analysis: The concentration of power and status after the Matthew effect

After we have created an image of the distribution of different forms of symbolic and social capital, the question of their *relations* remains. In the following sections, we will investigate these relations by constructing the space for social and symbolic capital through a specific multiple correspondence analysis. However, an analysis based on the indicators we have presented above shows that the Matthew effect applies to such an extent that the space becomes skewed. One group of chief executives have so little social and symbolic capital compared to the others that we find them in an isolated position (see Ellersgaard and Larsen 2010:97). The distribution of symbolic and social capital among the hundred most important chief executives is so uneven that the constructed space becomes extremely heterogeneous. A group of unintegrated chief executives, who are not operating in the field of power, are therefore not contributing any nuances to the investigation. Thus, in order to reach a higher spread in the space, we have excluded them. However, the interpretation of the two primary axes has not changed because of the exclusion and the dimensions therefore remain stable (cf. Le Roux and Rouanet 2004:277).

As explained above, the criteria of exclusion from the analysis is non-participation in central social or symbolic relations. Thus, we have excluded from the correspondence analysis those chief executives who are neither part of the boards of other top companies, the Denmark-America Foundation or a VL-group, and who have neither participated in royal events nor received Danish or non-Danish

⁹ However, high salaries and stock-options lift the CEOs out of the dependency on wage labour and enable them to live of the interest of their acquired capital. This places them in the lower part of the owning class (Wright 1997:25).

orders. Of the 100 chief executives 28 fall within this group. Of these, only three are vice-executives (of Carlsberg, Arla and ISS) and one (Eelco van Heel of Rockwool) is from a company where the owner-manager is also among the other 100 chief executives. Thus, the whole management of A.P. Møller – Mærsk and Danske Bank are still part of the group of chief executives who, within this perspective, are part of and recognized within the field of power. The rest of the excluded chief executives primarily represent the smaller companies among the 82 in terms of turnover and prestige, with Jesper Lien (Coop) and Kurt Kokhauge Larsen (DSV) as exceptions. However, this exclusion is not only due to methodological concerns. That nearly 30% of the 100 highest-ranking chief executives are unintegrated within the field of power is a surprising and interesting finding. *The social circles of the elite are extremely narrow in Denmark.*

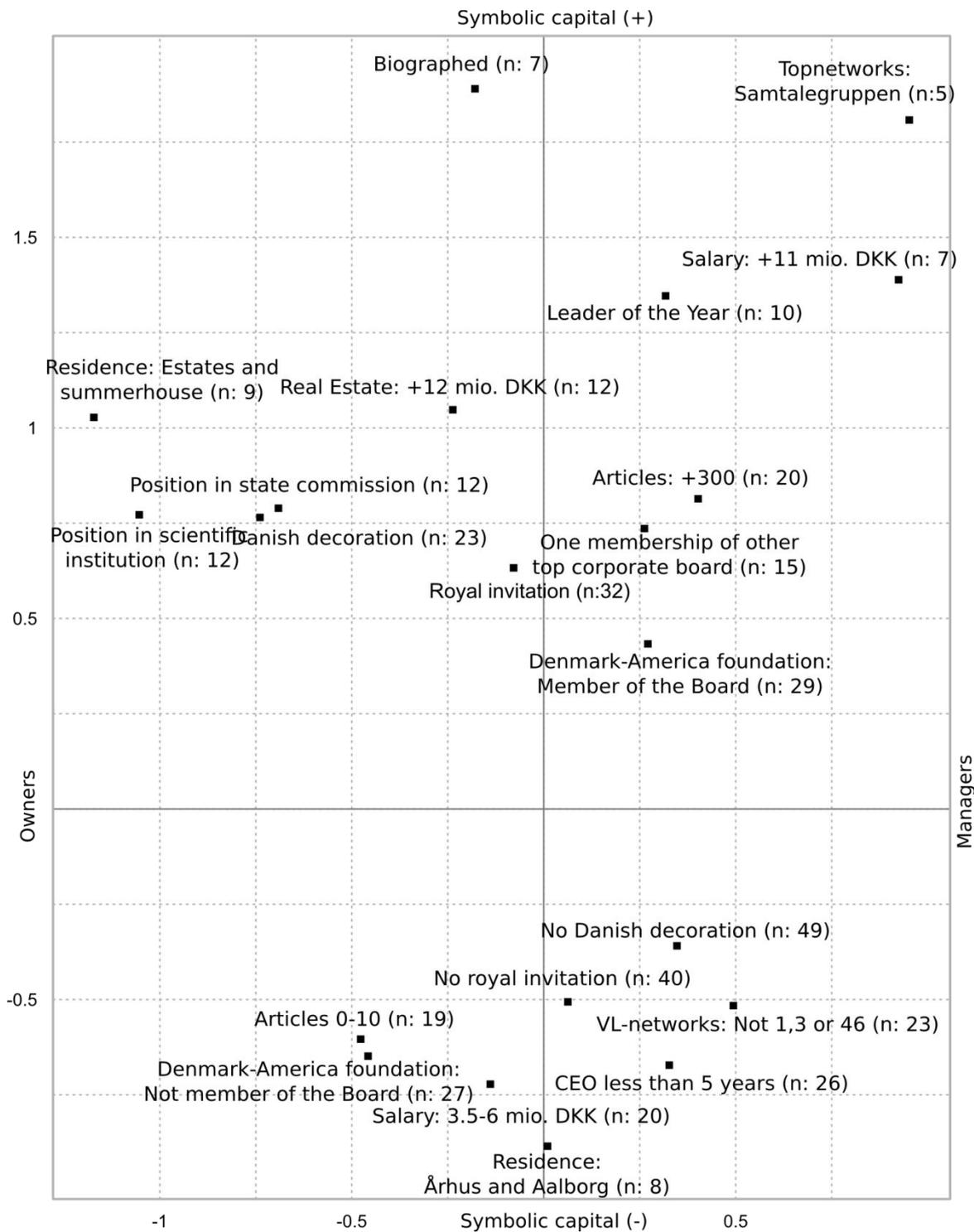
We have thus constructed a space with 72 integrated chief executives. We will now briefly introduce how this this analysis must be interpreted. The interpretation of the axes is inferred by the modalities with a contribution value above average (Jambu 1991:286). The active dimensions are chosen from a criterion of interpretability, as well as their relative strength in relation to one another. The first dimension explains 46% of the total adjusted inertia (Le Roux and Rouanet 2004:205–15), while the other dimension explains 22%¹⁰. Both dimensions have obvious interpretations, while the third only explains 9% and does not have any clear interpretation. The third dimension captures an opposition between a specific sub-group of Copenhagen-based CEOs and a number of the owners based in Jutland. The present we do not have any theoretical and empirical reasons to presume that this dimension is central for the understanding of the chief executives.

Since we intuitively understand power relationships as top-down, we have exchanged the first and second axis of the map, so that the strongest dimension is vertical. All maps have principal coordinates in order to make interpretation across variables more reliable. Distances of more than 0.5 are considered strong relations, while distances of more than 1.0 are considered very strong connections (Le Roux and Rouanet 2010:71). We will now begin a closer interpretation of the two dimensions.

FIGURE 3: THE SPACE OF CAPITAL ON THE FIELD OF POWER: INDIVIDUALS

¹⁰ Two modalities are passive in this analysis: "Property: Abroad" and "Salary: Lacking information". They amount to less than 1% of the total mass in the analysis.

FIGURE 4: THE SPACE OF CAPITAL ON THE FIELD OF POWER: MODALITIES WITH STRONGEST CONTRIBUTIONS TO DIMENSION 1



First dimension: Symbolic capital in the field of power

The first dimension describes the total amount of capital and opposes one or several of the indicators of symbolic capital against modalities without these properties. As we saw in Table 1 this dimension is

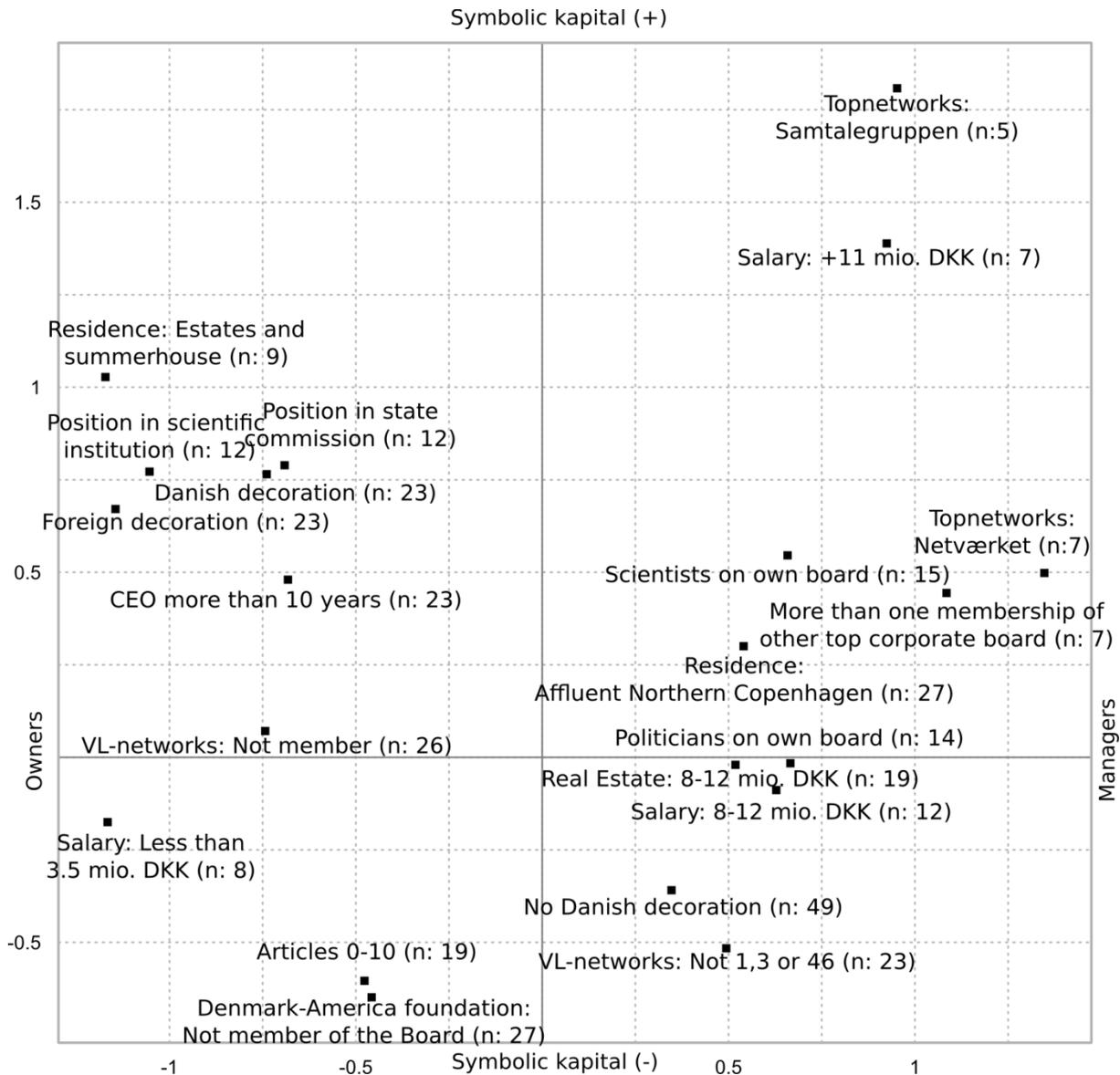
relatively equally determined by the two different headings. However, both royal recognition and publicity are relatively strong. This dimension demonstrates an opposition between the symbolically dominant executives at the top, and the excluded at the bottom. As figure 4 shows, the CEOs with most publicity are in the best networks, they receive the highest salaries and live in the finest and best residencies. They are placed in the top of the space. Opposite we find the excluded CEOs with low publicity and relatively low salaries. Here we also find those CEOs who have been chief executives for less than five years. Some of these will be able to move upwards in the space, as it takes time to convert other forms of capital into symbolic capital.

The dimension demonstrates that the distribution of different types of symbolic capital follows the Matthew principle (cf. Merton 1968). This becomes apparent when such diverse forms of recognition as network membership, awards for being executive of the year, residency and public posts follow the same dimension. It is also supported by the fact that the most recent arrivals within the field are placed at its bottom. Meanwhile, at the top of the map we find the executives of the largest Danish companies, as demonstrated by figure 3. At the very top of the map, we find owner and erstwhile executive of Danfoss Jørgen Mads Clausen and A.P. Møller Maersk chief executive Nils Smedegaard Andersen. At the bottom of the map, we find executives of relatively smaller companies such as Jørgen Wisborg from OK Benzin and Christian B. Lund from Sanistål. At the same time, we see that the cloud of individuals has its centre of gravity towards the bottom, while its spread continues to increase towards the top. Thus, a small number of CEOs possess significantly more symbolic capital than the rest.

One of the individuals placed in the upper part of the map, Stine Bosse, was the leader of the insurance company Tryg at the time of data collection. She later left her post and became more closely integrated in other elites, most prominently as the chair of the board of the Royal Danish Theatre and the think-tank Concito. The interpretation in this analysis would be that executives with lower total symbolic capital would not be candidates to these positions. Here we see that symbolic capital within the field of power is convertible to top positions within other fields.

It is interesting to note that being a member of a low-status VL-group places you lower than those who are not included. This is a result of the fact that several owner-managers are not members of VL-groups, but recipients of many other forms of symbolic resources. However, it is worth mentioning that had we included more executives as active individuals, the modality of lacking VL-membership would have been placed significantly lower in the space. The sharp distinctions between the strength of different VL-groups are made by the already included executives.

FIGURE 5: THE SPACE OF CAPITAL ON THE FIELD OF POWER: MODALITIES WITH STRONGEST CONTRIBUTIONS TO DIMENSION 2



Second dimension: Owners and managers

The second dimension divides the spaces horizontally in an opposition between different forms of symbolic capital. On the left pole we have the owners who gain their income as return on capital; they do not prioritize professional networks, and seek to integrate with the state instead. The integration happens both symbolically in the form of orders and royal invitations, but also through honorific posts and seats on state commissions. The owners also often live further away from the central networks of

North Zealand and Copenhagen. Among them, we find landowners such as Troels Holch Povlsen and Kjeld Kirk Kristiansen, owners of Bestseller and Lego respectively.

We thus find an opposition between the heirs and the owners on the one side, and the employed CEOs, who have built their position through their career, on the other (Bourdieu 1996:270). According to the post-Keynesian school of economics (Stockhammer 2004) we find three opposed class position within the capitalist class: executives, capitalists and rentiers. Capitalists and rentiers are both owners, but where the capitalist is an executive owner, the rentier is a relatively passive recipient of dividends. The executive, who is not an owner, is placed in a relationship of contradiction with the circle of owners: theoretically, he is more interested in the growth of the company than maximizing shareholder value. In other words, the CEOs are interested in strengthening their status within their specific field by increasing its organisational capital. This relation explains that the owners of many companies have tried to tie the executives closer to the interests of the owners, by increasingly paying them through stock options and bonus schemes¹¹.

The managers, i.e. the executives who have not inherited their position through ownership, distinguish themselves by being members of more networks, having more posts on executive boards and much higher salaries. They are also more in the same boards as members of other elites. It is interesting that the Royal Family are bestowing most recognition on the owners, who have the same mechanism of reproduction as them, namely the family based one (cf. Bourdieu 1996:278–85). This opposition between strategies of reproduction has divided the field of power since the days of absolutist monarchy (cf. Hansen and Hammerslev 2010:20).

The differences we find in this correspondence analysis suggest that owners and managers have very different strategies and needs. To some extent we can see the central networks as attempts by the executives to position themselves internally in the competition between executives, cf. figure 5. At the same time, we see that state-actors prefer to include the owners directly in commissions and committees, while the executives integrate themselves through networks. These oppositions demonstrate that there are divisions even within this exclusive and homogeneous group, and that these divisions matter for personal careers as well as for the character of the types of state contacts different companies can achieve. Companies with strong and active owners have other opportunities than companies with diverse or passive ownership circles. The largest companies have the option of

¹¹ This is happening despite the fact that about 300 studies of the effect of stock options on company profitability have been unable to establish a clear effect (cf. Daily 2003).

harvesting the advantages of both an active owner and a prestigious executive. We see this in figure 5 where both the manager Nils Smedegaard Andersen and the owner Arnold Mærsk Mc-Kinney Møller have a high position within the field¹².

Prestige and character

The connections described above are interesting, but if they do not map onto the resources of the companies – in a way that places the largest companies at the top of the map – it would raise the question if the dimensions actually capture integration within the field of power or if it merely shows local connections. Meanwhile, one would expect that the status differences uncovered in the analysis would be the expression of different compositions of habitual dispositions among the CEOs. This would entail that executives from distinguished homes would have their own specific strategies. We can attempt to answer these questions through an analysis of supplementary variables for company prestige and the character of executives.

Prestige

In the analysis of the supplementary modalities (see figure 6 and appendix) we see that the most prestigious companies measured by turnover, employee number and publicity are significantly higher placed in the relatively smaller companies. Not surprisingly, integration and recognition follow the strength of the organisation. This also demonstrates that integration and the distribution of symbolic resources to the executives follows the company's prestige and place within the economic field. This would indicate that the symbolic resources of an executive stands in a dialectical relationship to the resources of the company. In figure 7, we see that this connection is not complete, because relatively smaller companies are pulled up by their symbolic resources, for example in the form of publicity. Here it is clear that some of the family-owned companies with active owners are able to achieve a higher integration than much larger enterprises. This, for instance, is the case of Lego (0.5), which is one of the smaller companies in the population, in comparison with Nykredit (-0.25), which is one of the largest companies measured by turnover. Both are on Danish hands, but Lego is a dynasty, an export company and a "national pride". This has implications for the allocation of symbolic resources. We also see that amount of mentions a company gets in books has a large impact on how included its chief executive is. The accumulated symbolic capital of the company is also reflected in the recognition of

¹² However, not all owners share the symbolic capital, as we see in the relation between JYSK's owner, Lars Larsen, and its manager, Hans Henrik Kjølbj.

the CEO. This suggests that the symbolic capital personified in the CEO also, but not only, is an expression of the collective strategy of a whole enterprise.

FIGURE 6: THE SPACE OF CAPITAL ON THE FIELD OF POWER: SUPPLEMENTARY MODALITIES

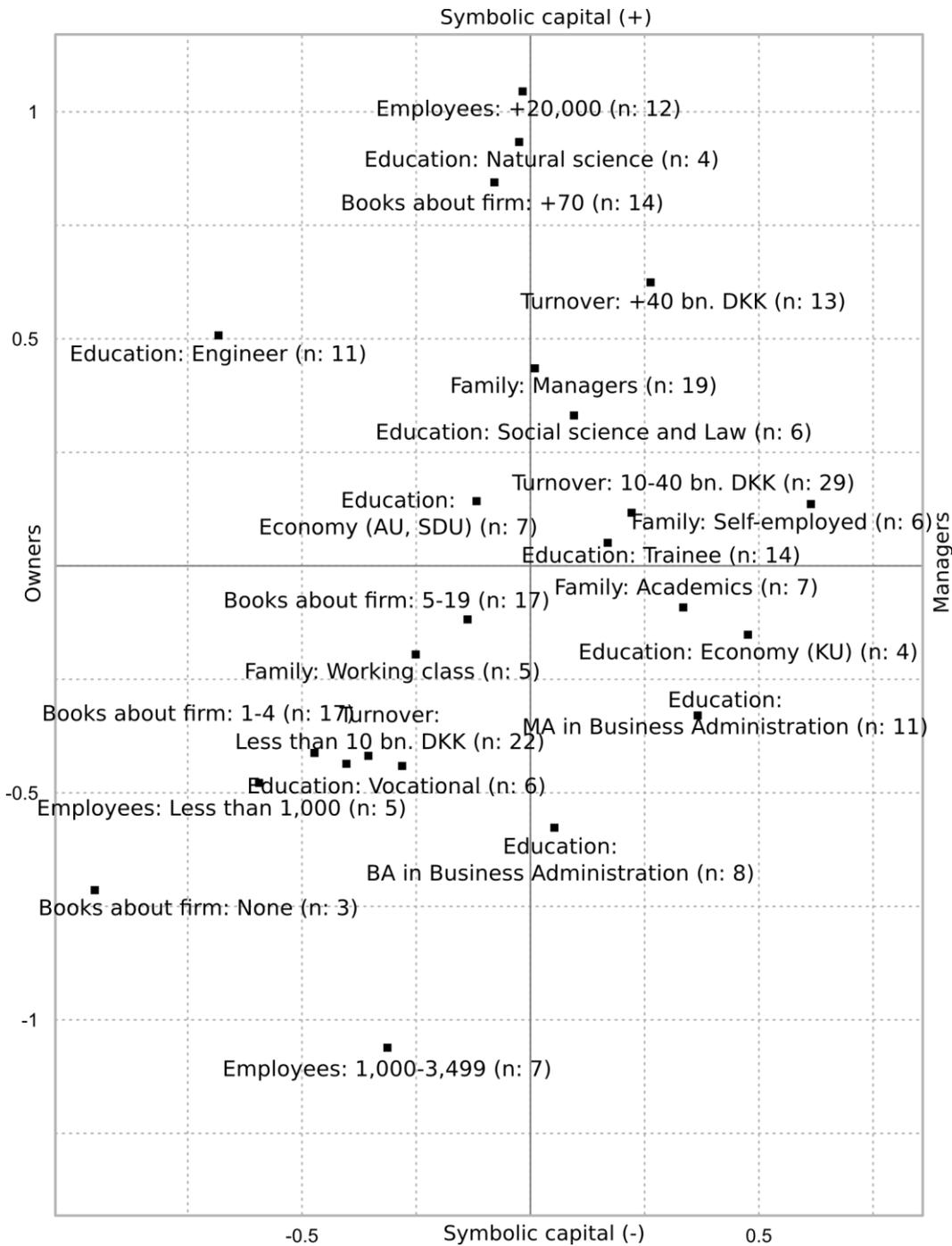


FIGURE 7: THE SPACE OF CAPITAL ON THE FIELD OF POWER: CORPORATIONS



Character

We measure the executive's character through data for his and his father's education, which together give access to what Michael Hartmann (2000:6) describes as the "class-specific habitus". In figure 6, we see that the executive's education varies very closely with the amount of recognition. For instance, we

see that civil engineers or scientifically trained CEOs have stronger positions than executive who merely have degrees in Business & Management. Here the contradiction between owners and managers reappears, because the many more owners than managers have degrees in civil engineering. Simultaneously, it is apparent that CEOs with parents who have also been executives have higher positions. The largest companies often hire executives with family backgrounds in management due to a double mechanism: firstly because they stand more strongly in the internal competition, and secondly because they have resources that can help them gain symbolic capital beyond the symbolic capital that comes with a job in a given company. In this conversion of one form of capital to another, we once again see the Matthew principle in action.

Conclusion: Owners and managers within the field of power

By establishing different measures for social and symbolic capital in the field of power, this analysis has demonstrated that one can identify a dimension of total capital, which follows a Matthew effect in which the different forms of capital grow in tandem. To a large extent symbolic and social capital are expressions of the same upward movement in the space. This is due to the kinship of the two forms of capital, but also to the fact that inclusion (social and symbolic) is the central mechanism of differentiation within the field of power. The importance of social capital within the field power springs from its diverse composition and the fact that integration within it is based on both homogeneity and difference. The inequality in symbolic capital between the 100 top-most chief executives means that including the lowest 28 of them would skew the space downwards, in a way that would make it harder to see the differences within it. This suggests that even within this extremely exclusive group the distribution of symbolic capital, which is important in the field of power, is so uneven that is far from all actors that can assert themselves. The analysis makes visible the divisions between the integrated and powerful executives and the executives who are not capable or do not want to play an active role in the field of power.

The analysis also identifies a contradiction between owners and managers, once again finding internal divisions in the distribution of symbolic resources within the class of capitalists. All this shows that the state and other elites allocate different types of capital to owners and managers respectively and it shows that owners are more frequently invited to participate in public bodies. Managers, on the other hand, are much better mutually integrated, as shown in their status in the field of executives. Recognition is mainly bestowed upon people who are already recognised. Thus state actors also take part in giving certain actors advantages. This group is not representative of the rest of the economic

field and it is therefore worth investigating if this biases economic policy in favour of these actors.

Discussion: Chief executives and the size of the power elite in Denmark

Compared to previous elite studies in Denmark and internationally, the population of this study is very homogeneous and restricted, because we only look at the 100 most important executives. For instance, the elite-study of large state funded research project *Power and Democracy in Denmark*¹³ (Christiansen et al. 2001) included 500 business people, among them 250 executives. It was thus not to be expected that our correspondence analysis would find it hard to differentiate between the least prestigious CEOs in the bottom of the map, because we presumed that these executives were included in the social networks around the power elite. However, that a relatively large group can be described as ‘have-nots’ (Denord et al. 2011), suggests that the group is too heterogeneous in terms of social and symbolic capital. This finding is in itself interesting, because it raises the question of the size of the power elite in Denmark.

The analysis suggests that only about half of the most important CEOs in our analyses are included in the social circles – both company boards, royal events, foundations and more social clubs such as the VL-groups – around what Bourdieu describes as “the establishment” and what C. Wright Mills defines as a power elite, properly speaking. The integration in these exclusive social circles seems to be limited both in terms of integration internally in the economic field – i.e. with other chief executives, chairmen and owners – as well as in relation to the main players in both the scientific and the political field.

If, in addition to managing directors, one estimates how many actors from the top of the economic field (e.g. chairmen, owners, investors, managers of pension funds, leaders of employers' organizations or representatives from public authorities such as the National Bank) are included in these circles, it may double the amount of inclusions from the economic field within the power elite. In that case, we might deal with some 100 individuals, representing only a fifth of that economic elite, which was identified in *Power and Democracy in Denmark*. While that study contains 1,711 positions in its entirety, and our analysis of its data (Ellersgaard 2014; Ellersgaard and Larsen 2008) suggests that the business

¹³ This project, known in Danish as “Magtudredningen” was launched by the initiative of the Danish parliament in March 1997 and officially entitled, “An Analysis of Democracy and Power in Denmark.” The study was headed by an independent research committee.

elite is the best integrated¹⁴, we can estimate that such a socially integrated power elite may only consist of between 250 and 500 people.

Thus, we are proposing a significantly more narrow definition of elite size than suggested by the tradition of elite studies. Typically, such studies focus on about 2,000 persons in countries such as Denmark and Norway (Gulbrandsen et al. 2002), about 3,000 in Sweden (Statens Offentliga Utredningar 1990), 5,000 in medium-sized countries such as Australia, France, and Germany and 7,000 in the super power USA (Burton and Higley 2001:189). The tradition presumes that the larger the country, the larger its elite. However, this presumption does not suggest that the relationship is directly proportional. Thus, the elite of the USA is taken to be 3½ larger than that of Denmark, even if the country's population is 50 times larger. Behind this lies a notion of the relative strength of power in relation to other actors within the nation-state-based organized power elite. However, such studies rarely make explicit their criteria weighing the relative strength of power, and most elite studies are very vague about their reasons for choosing a specific population size. Yet such delimitations are interesting results in themselves, especially comparatively, and they are naturally of great importance for the results of the analysis of the selected population.

Here, a definition of the elite, which looks at the actual network connections within the elite, could provide the answer to question of which individuals are found worthy - and thus have the necessary social or symbolic capital – to enter into the highest circles. Memberships are both a power resource in itself and an indication that an actor has been initiated into the division of labour of domination. Based on data from the Norwegian power study, Denord et al (2011) have found an elite with a size of about 290 individuals, which integrates itself across key sectors. This study looks at exchanges between sectors, and the population is not obtained by means of network data, but through the position method. We believe that the development of a method that identifies elite membership through aggregated network connections could contribute significantly to the solution of both the problem of the size of the elite, and provide a computerized image of the elite's composition. This will require a methodological application of inductive social network analysis (see Scott 1991b) to the task of defining elite populations. As mentioned, such a strategy will probably provide a significantly smaller elite population, which can be seen as interwoven by a mechanical solidarity created by many meetings in integrating social communities (cf. Collins 2004).

¹⁴ These analyses even suggest that certain sub-elites, especially the cultural elite, but also partially the media-elite are almost totally excluded.

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3. The Inner Circle Revisited: The Case of an Egalitarian Society

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Abstract

The interlocks between the corporate elite in a highly egalitarian society, the Scandinavian welfare state of Denmark, are examined through re-establishing Michael Useem's notion of the inner circle, which describes the conditions of the formation of classwide rationality in the corporate elite. In spite of challenges to intercorporate cohesion from the ongoing internationalization of capital, the withdrawal of banks and the limits to networking posed by new standards of corporate governance, a cohesive core group of 171 individuals is identified within the entire corporate elite of 6154 board members of the top 1037 Danish corporations in 2012. Using a new measure of social circles memberships based on proximity in social networks, the identified inner circle encapsulates the notion of the inner circle better than the usual indicator of inner-circle memberships, number of top board memberships. A high level of social homogeneity of gender, social background, education, and career position underlines the cohesion of the inner circle. Further, the members of this inner circle are the main political representatives of the corporate elite in other powerful networks. By data-mapping all powerful networks in Denmark (i.e. business association committees, political commissions, university governing boards, cultural institutions, social clubs, foundations, and royal events) it is shown that the inner-circle members appear more frequently in all fields of power than other the rest of the corporate elite.

Introduction

In the wake of the financial crisis and the subsequent downturn in the global economy, an old spectre returned: the spectre of the upper classes, the ultra-rich, and the capitalist class. And yet, the prevailing impression is that this class no longer has an organized capacity to act in a concerted fashion. This is particularly the case in countries where class action *in general* is viewed as most improbable, such as the egalitarian welfare states of Scandinavia. Of these countries Denmark in particular has been regarded as, if not a pluralist haven, then at least one with relatively weak coherence and high openness in recruitment (Christiansen and Togeby 2007; Ruostetsaari 2007). Along with the perceived waning class consciousness of the working class and relative income equality it is tempting to see Denmark as one of the most likely cases for the “death of class” thesis (see e.g. Bell 1973; Pakulski and Waters 1996). However, the social organization of the capitalist class has been neglected in discussions of the dissolution of class society. A closer examination of the inner circle within the network of the Danish corporate elite questions the notion of the death of class action and reveals a capitalist class that exists, to express it in the most classical terms, both “in and for itself”.

Michael Useem’s (1984) concept of “the inner circle” provides a framework capable of challenging the misconception of a fragmented corporate community by exploring its networks. The inner circle is a cohesive segment of the capitalist class, organised through interlocking board memberships to create the basis for a classwide rationality representing the interest of big business at large. This inner circle is, in turn, shown to be the also most politically active among the corporate elite, appearing on, for example, university boards, in policy planning groups, in business organizations, and exclusive social clubs. The inner circle both facilitates the formation of class interest and represents this interest among other elites. While demonstrating the existence and framework of an inner circle in Denmark, the authors, along with constructing the inner circle framework, were faced with three challenges. First, the classical boundary problem of elite sociology: Who can be regarded as members of the elite? Second: How can we observe the political action of this group? Third: Under the current business infrastructure, which has been developed to respond to a more and more globalized economy and new standards of corporate governance, is it still possible to form cohesive corporate groups in egalitarian societies such as Denmark?

The primary aim of this study, then, was to establish the continued relevance of the concept of the inner circle. Originally, Useem (1984:63) used multiple memberships of top corporate boards as a “proxy” of inner-circle membership for “technical convenience”. However, a more empirically sensitive procedure for identifying the intersection of social circles through social network analysis was developed by Richard Alba and Charles Kadushin (1976). When investigating the inner circle by applying this method to the network of multiple board members of the top 1037 Danish corporations, a core became visible. After identifying this inner circle, the social homogeneity of their biographies was assessed. Finally, the political activity of the inner circle was demonstrated by mapping their participation in other potentially powerful networks, drawing on unique data of all institutionalized power networks in Denmark. This enables us to analyze whether or not an inner circle identified only by positions in the corporate network is more likely to be part of other important elite networks.

Background: The Fracturing of the Inner Circle in Contemporary Capitalism

Recent developments have seriously challenged the inner circle hypothesis. In a number of countries the level of integration within the inner circles of corporate elites has deteriorated for three reasons: (1) the decline of bank involvement in the corporate networks; (2) the emergence of transnational corporate networks; and (3) new standards of corporate governance. The Danish context questions the extent to which these developments have rendered the concept of inner circle obsolete. Contrary to the intuitive notion that a country with relatively strong labor organizations and egalitarian politics such as Denmark would lack a strong corporate elite, perhaps these institutions engender a greater need for corporate elite unity in order to secure the interests of the capitalist class.

First, as the American interlocks had been tied through bank centrality (see Mariolis 1975), the disengagement of banks led to a much more loosely and infrequently tied corporate network in the US (Davis and Mizruchi 1999; Mizruchi 2013). In Denmark, corporate law prohibits bank directors from taking board positions outside the financial sector (Edling et al. 2012). As a result, the network has never relied on banks, therefore changes in their behaviour are unlikely to have had much impact the corporate network.

Secondly, small, open economies such as the Netherlands and Switzerland, both comparable to the Danish economy, have experienced a decline in the number of corporate interlocks (Bühlmann, David, and Mach 2012; Heemskerk and Fennema 2009). Whereas dissolution of the US corporate network can be explained by the bank centers turning their attention away from productive capital, the weakening of ties in the smaller economies can in part be attributed to the influx of foreign capital. Foreign ownership will usually result in foreign directors and board members. As the national networks decline we see the rise of new trans-European or global elites formed by “global interlockers” (Carroll 2010). However, Denmark is still at the periphery of European corporate elite formation (van Veen and Kratzer 2011). Furthermore, both the Netherlands and Switzerland are hosts to numerous transnational corporations, whereas Danish corporations are comparatively small, with the exception of the shipping giant and conglomerate A.P. Møller – Mærsk, the only Danish corporation listed in *Fortune’s Global 500*. The Netherlands have 11 listed corporations and Switzerland 14. The Danish case thus sheds light on whether or not the inner circle has also corroded within economies with relatively small corporations¹.

Thirdly, as changes to international standards of corporate governance (see e.g. Ferris, Jagannathan, and Pritchard 2003) question the legitimacy of the “olds boys’ ” network, the challenge in Denmark arises more from ideological inspiration than direct interest of ownership as Danish corporations have not yet been subject to dispersed shareholding. Of the top 82 corporations in 2008 (Ellersgaard, Larsen, and Munk 2013), 25 were controlled by families, 15 were controlled by foundations, six were state-owned, and nine were owned by cooperatives. Of the 1037 corporations included in this study, only 88 were listed on the stock exchange and some were even retained under a system of classified stocks. Corporations are therefore able to remain more autonomous from stock market influence and to a large extent, include board members they trust. The sparse research on corporate interlocks and interlockers in Denmark also suggests a high degree of clustering (Schøtt 2003) and that the small-world phenomenon is more common in Denmark than in the rest of Scandinavia (Edling et al. 2012).

¹ However, the 1,037 corporations employed around 1,600,000 both inside and outside Denmark, which would be equal 57 % of the total Danish labor force, showing their potential importance in spite of their apparent lack of size.

The international tendency towards the fracturing of corporate elites could also be attributed to the inner circle's decreasing need for coordinated political action, owing to the rise of neoliberal politics (Mizruchi 2013), as the cohesion of the inner circle also derives from the extent of political opposition to corporate interests (Useem 1982). The context of a decommodifying the Scandinavian welfare state (Esping-Andersen 1990) and a coordinated market economy (Hall and Soskice 2001) creates a relatively equal and affluent society for the distribution of income as measured by Gini coefficient and high GDP per capita levels (Campbell and Hall 2006).

Furthermore, organized labor still holds a strong, if declining position, with union density at about 70% (Visser 2006). This corporatist environment created by the collective organization of both labor and business also ties union leaders to the corporate world through union-owned banks and employer–employee owned pension funds. However, recent declines in union density, level of equality and corporatism (Blom-Hansen 2001) are challenging the consensus based on cross-class alliances. Thus, the role of union leaders as both tied to and a political challenger of the corporate elite remains unclear. At the same time, business organizations remain key political actors of the corporate worlds, both as lobbyists and through involvement in government (Binderkrantz, Christiansen, and Pedersen 2014). This adds to the paradox of the status of the inner circle in Denmark. Does egalitarian, corporatist society, as one of the last challenges to neoliberalism, remain a place where capitalists have to unite, even outside of the business associations?

Theory: The Notion of the Inner Circle

In emphasizing the creation of class cohesion through social interaction within the elite, Useem's concept of the inner circle follows a current in classic elite theory. From Mosca (1939) and C.W. Mills (1956) to studies of corporate interlocks (Allen 1974; Mintz and Schwartz 1981; for review, see Mizruchi 1996; Scott 1991), this tradition has defined the social integration of the elite by their social integration. This is in contrast to a tradition running across sociologists as diverse as Pareto (1991) and Bourdieu (1996), who in various ways emphasize the resources and formal positions of elite individuals.

Any search for a cohesive elite group struggles with the demarcation of the core group (Laumann, Marsden, and Prensky 1983). In a democratic society, lacking the formal definitions of social standing, defining the exact boundaries of such a group must be akin to demarcating a cloud

(Bourdieu 1996). As a result, the inner circle is not a distinct group with clearly marked boundaries but an axis of inner group centrality within the capitalist class (Useem 1979). The extensive networks create cohesion within this elite group through ties of friendship, kinship, ownership, clubs, business associations, and boardroom interlocks (Cornwell and Dokshin 2014). Furthermore, the cohesiveness created by these networks is in turn enhanced by the members forming a status group exhibiting social closure and shared values and manners (Domhoff 1975; Useem 1978), thus forming a “class-specific habitus” (Hartmann 2000). The connections serve many purposes, but an extended “business scan” is of particular importance (Useem 1982). By tapping into the flow of information that moves in these networks, the directors and their corporations gain privileged information on the plights and opportunities of other corporations. By maintaining direct contact with state officials, the directors gain insights into the workings of the political apparatus. As Bourdieu (1996:368) stated, “information on power is a source of power in and of itself”. But these channels of information are also channels for reputation and social control.

Manoeuvring multiple directorates, boardrooms and business organizations may be a tricky business, because of questions of loyalty towards different corporations (Vedres and Stark 2010) and the corporate community as a whole. As a result, formal and informal rules restrict praxis in the inner circle. The ones who are able to manifest the “...capacity to transcend the immediate imperatives of his or her own company to express a broader vision” (Useem 1982:216) become central in the inner circle. These are the individuals who come to embody the classwide rationality of the inner circle. Classwide rationality differs from the diverging, uncoordinated, and atomistic interests of the corporations by “promot[ing] the broader needs of big business” (Useem 1982:201–2). It is important to note that classwide rationality is not a neutral concept. Any definition of the interests of an entire class is likely to be biased towards the interests of the dominating corporations (Fligstein 1996). Rather, the inner circle is able to successfully legitimize their interpretation of the class interest. The cohesive network that is the basis for the formulation of class interest is what sets the definition of the inner circle apart from other business elite definitions. Those who are most likely to embody the classwide rationality are not necessarily the CEOs of the largest corporations or the wealthiest owners.

Since the work of Berle and Means (1932), there has been an ongoing discussion on whether or not CEOs share class relations with the capitalist owners. It was proposed that the diffusion of

ownership would entail a loss of capitalist control and a diminished focus on profits. Although the disintegration of ownership and control has been seriously questioned (Zeitlin 1974), the notion of classwide rationality rests upon the social connections between management and ownership through corporate interlocks (Useem 1979). Thus inner-circle membership cannot be ascribed through the traditional positional method of identifying elite membership, such as holding a senior management position within a corporation of a certain size (see e.g. Maclean, Harvey, and Press 2006). Inner-circle membership requires being part of a social group rather than just holding a position of command (cf. Scott 2003).

Politically, the inner circle can be seen as informal *representatives*. To the extent that the corporate community manages to gain access to other power spheres, those who are inner-circle members will be more likely to take part. This is the case for business associations, cultural organizations, federal and government advisory panels, and university boards (Useem 1978, 1979). These institutions correspond to the subfields within the field of power identified by Bourdieu (1996), allowing inner-circle members the opportunity to engage in the exchange of different forms of capital. Furthermore, when, for instance, state officials seek new persons to take up public positions, they may acquire recommendations for possible candidates from prominent business leaders already holding public positions (Useem 1984). A cohesive inner group both provides a common framework and secures the promotion of internal members. Although this does not mean that inner circle members necessarily hold a firm grip on public opinion or individually be financially positioned to promote certain causes, the inner circle is characterised in other power networks by being the representatives of the capitalist class.

Data: The Networks of the Entire Corporate Elite

The data used in our study to identify the inner circle consists of the names of the board members and management of the top 1000 corporations according to turnover, as of March 2012. Data on board membership and corporation size comes from the Danish Corporate Register. Furthermore,

we have added 36 independent subsidiary firms of these corporations². In addition, to ensure that the recent trend towards financialization of the economy (Stockhammer 2004) is not neglected, we have included the boards and management of the 28 members of the Danish Venture Capital and Private Equity Association and the state-owned Finansiell Stabilitet, which controls the leftovers from failed banks. After removing non-independent subsidiaries, the data comprise 1037 boards, with 7065 positions held by 6154 individuals. This data is fairly inclusive and the differences in size among the corporations is notable. The smallest corporation has a turnover of just DKK 304 million (US \$53 million), whereas the largest corporation has a turnover of DKK 315 billion (US \$55 billion). The top 100 corporations account for 68.3% of the total turnover of the 1037 corporations.

The network data are combined with data for business association committee membership, governing boards of academic and cultural institutions and foundations, membership of political committees, and the like. These data come from a mapping, conducted by the authors, of all institutionalized power and prestige networks in Denmark. Unless otherwise indicated, the data were collected through the public administration database [FOA], which lists all state-recognized organizations and public positions, and matched with the names and positions provided by the websites of the organizations listed in the FOA. Biographical material for the social homogeneity of the inner circle was gathered from *Kraks Blå Bog* [*Who's Who*], company websites, profiles on LinkedIn, and newspaper articles, and are thus primarily self-reported.

Methods: Reconstructing the Methodology of Inner Circles as the Core of the Corporate Network

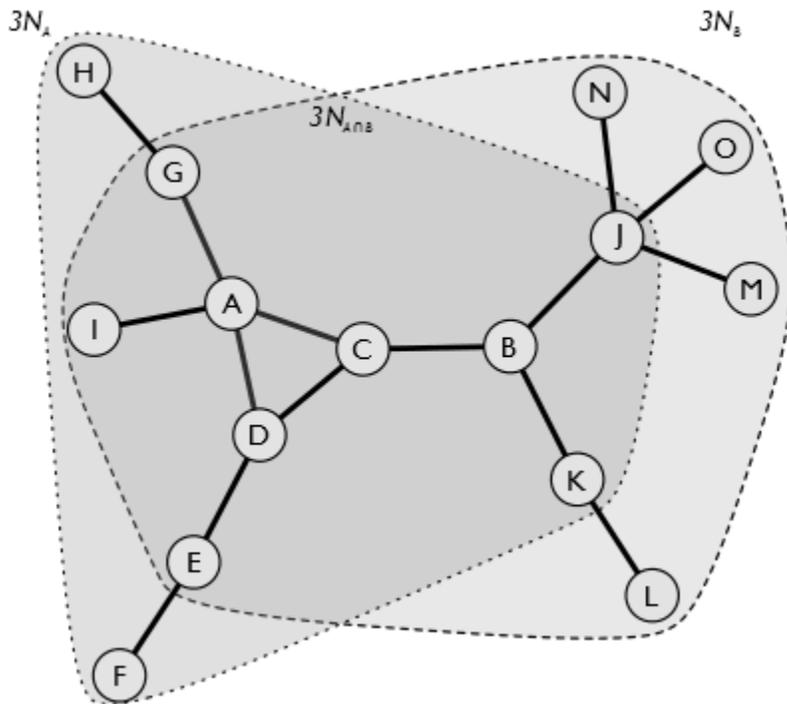
One might argue that selecting more than 1000 corporations in a small country like Denmark is too inclusive. The main methodological focus of this *network of the entire corporate elite* is to secure the inclusion of all relevant but still fairly comparable corporate ties that might facilitate cohesion and the diffusion of reputation. Non-prestigious boards are deliberately included, with the result that the

² Included subsidiary firms all have board members who are not all employed by or at the parent company board.

Further, these companies all have turnovers so large that, were they independent firms, they would have been included in the data.

issues of the scale of ranking (see Carroll and Fennema 2004; Kentor and Jang 2004) are less important in this case. Within the corporate elite, the *network of the connected* comprises the 3166 corporate elite members who are connected to each other in the largest component. It is within this component that the inner circle must reside, because the second largest component comprises only 28 businesspeople and is thus more than 100 times smaller than the largest component. However, many members of the connected corporate elite do not themselves form ties but are tied only through the clique nature of boards: if just one board member forms ties to other boards, everyone in the board becomes connected at a second degree. Thus we have restricted parts of our analysis to the 514 board members and directors who hold more than one position within the largest component of the corporate network, the *network of linkers*.

FIGURE 1: OVERLAPPING 3-NEIGHBOURHOODS AS PROXIMITY MEASURE



The proximity of A and B is determined by the shared overlap for 3-neighbourhood divided by the total size 3-neighbourhood of both A and B. In this case, the shared neighbourhood is 8 (A, B, C, D, E, G, I, J and K - 1) out of 14, giving a proximity score between A and B of 0.571.

This group of 514 linkers would usually be regarded as the inner circle (Heemskerk and Fennema 2009; Useem 1982). When the number of boards increases, this definition rapidly decreases in selectivity. The network grows in size and with it the network dynamics change. The *degree* (the number of connections) or *betweenness centrality* (to be on the shortest paths in the network between linkers) and *closeness centrality* (having the shortest average path length to all linkers—(Freeman 1979), as well as size of the 3rd neighbourhood, all follow a power-law distribution (Barabasi and Albert 1999), not only in the network of the entire corporate elite, but even within the network of linkers (see Figure 1). The diameter—the longest path length within the component—is still 13 degrees in the network of linkers, so that transmission of actual knowledge of each other's reputation through these channels is very unlikely.

In order to identify a more cohesive subgroup, cluster analysis was used as a heuristic tool. A measure of proximity using overlapping social circles (Alba and Kadushin 1976) calculates distances between all linkers, which are in turn cut into clusters by hierarchical agglomerative cluster analysis. The advantage of this procedure is that the linkers are placed in mutually exclusive typological groups. The measure of overlapping circle proximity is identified by using the shared overlap of linkers' 3rd degree neighbourhood. A proximity measure ranging from 1 (total overlap of 3rd degree neighbourhood) to 0 (no overlap) is created for each pair of linkers (see Figure 2). Thus linkers are regarded as close and potentially part of a certain circle, to the extent that a large proportion of their network share the same members and to the extent that these ties in turn are composed of the same linkers. The 3rd degree neighbourhood has the advantage of measuring the degree centrality of the 2nd degree neighbourhood. As a result, individuals with relatively selective but central direct contacts can get high proximity scores, because their 3rd neighbourhood grows rapidly in size and therefore has a higher possibility of overlapping with others.

FIGURE 2: DISTRIBUTION OF DEGREE, 3-NEIGHBOURHOOD, CLOSENESS CENTRALITY AND BETWEENNESS CENTRALITY IN NETWORK OF CONNECTED AND NETWORK OF LINKERS

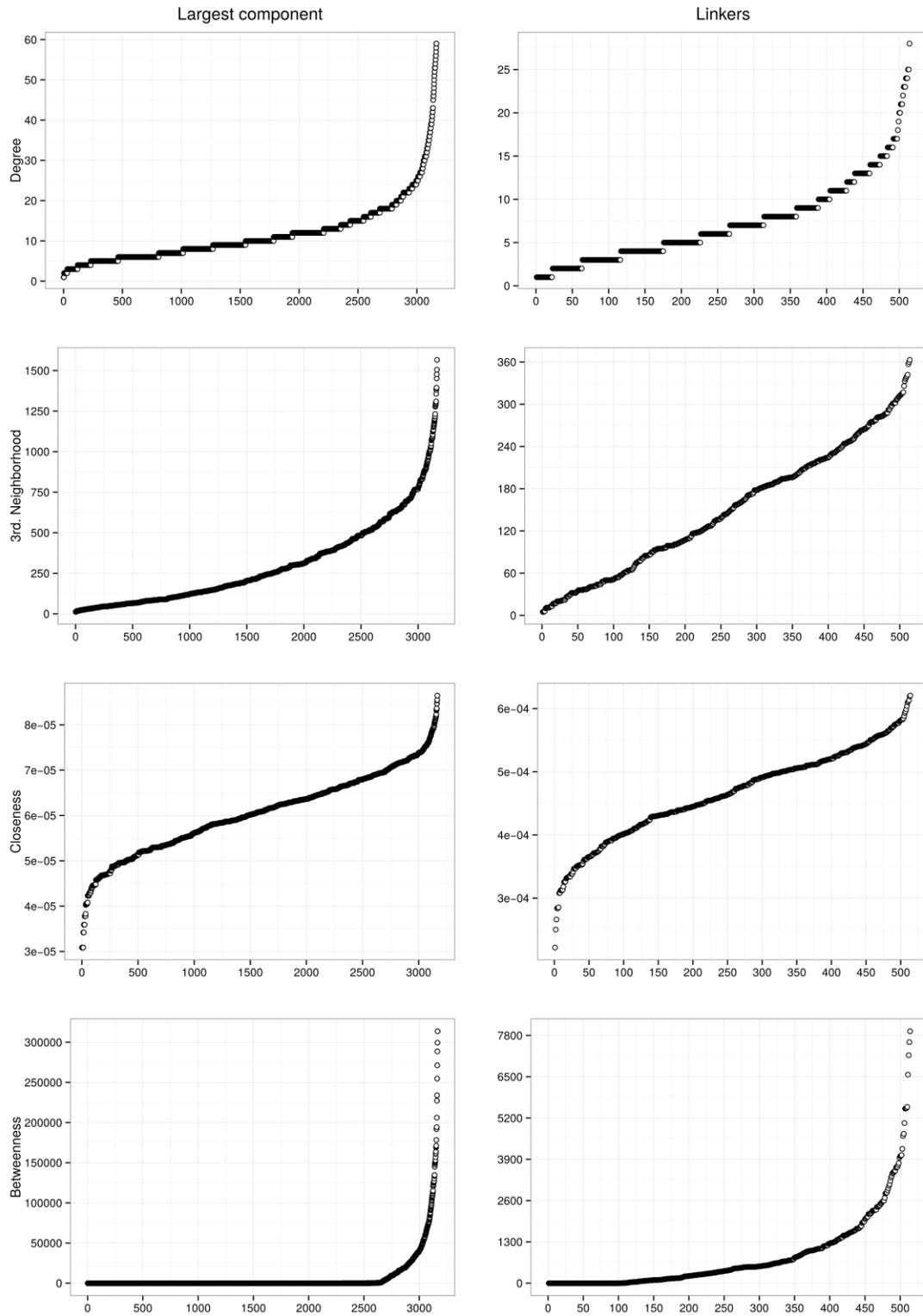
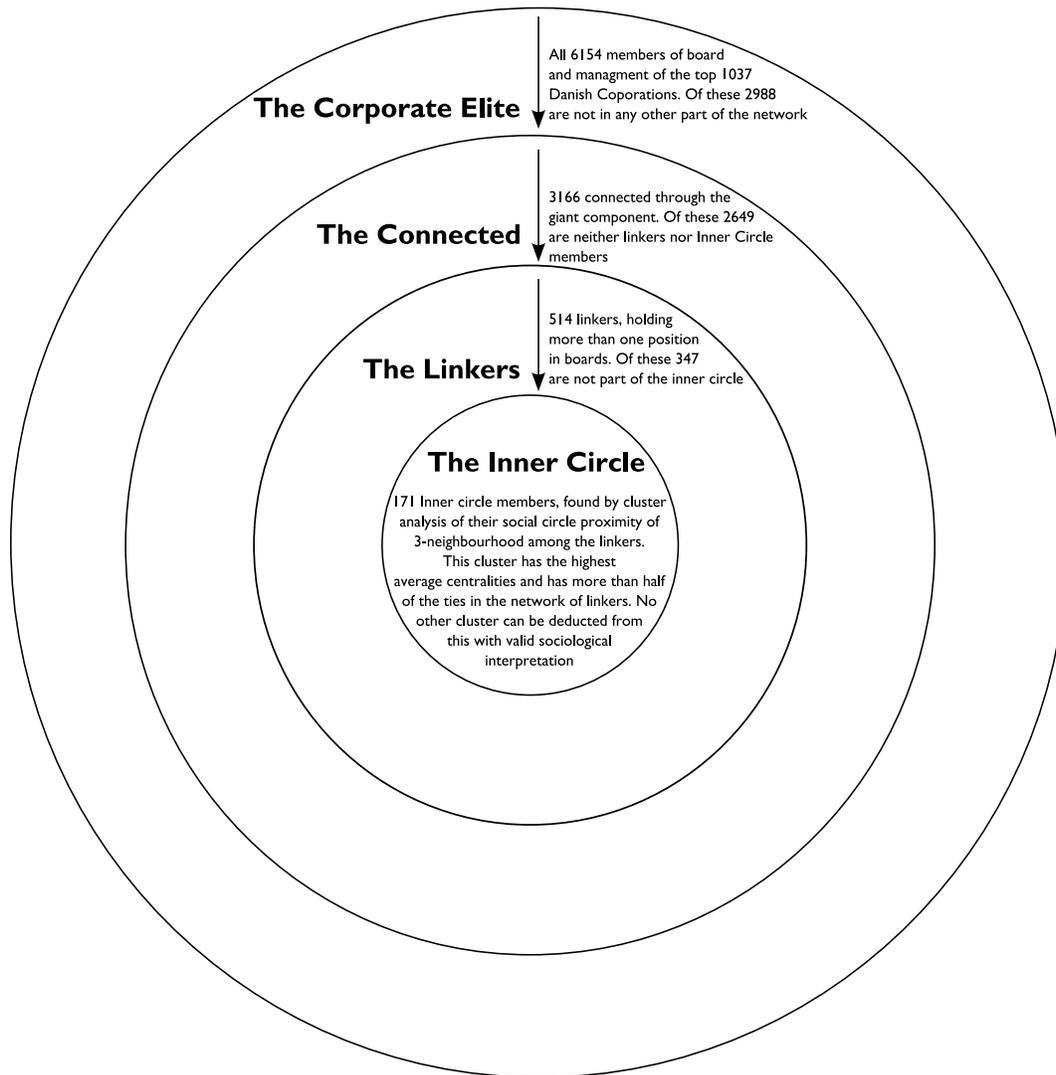


FIGURE 3: THE DIFFERENT NETWORK SEGMENTS OF THE CORPORATE ELITE IN DENMARK



As the clustering algorithm cuts the network into clusters, the group having the largest share of all ties is analyzed. At the partition before this cluster no longer has half of all ties, the procedure is terminated. In this case, 343 linkers are excluded from the network, leaving us with 171 members of a more cohesive network: *the inner circle*, as we define it. The entire procedure is summarised in Figure 3. When comparing the inner circle as clusters are gradually cut off (see Appendix I), the procedure works much like peeling layers of an onion. Less integrated parts of the inner circle are excluded one by one. The excluded clusters do not form a single connected group, but subgroups hanging onto

different parts of the inner circle. A common denominator is provided within each cluster, for example, individuals connected on boards due to cross-ownership of less prestigious firms.

The decision to end this clustering procedure is of course based on an estimate rather than on strong objective criteria, and yet it does rest on both qualitative and quantitative concerns. Thus, the clustering procedure is concluded after four subgroups have been removed from the inner circle because a further reduction would reduce the number of ties from the network of linkers by more than a half to 44.5%. Most importantly, the fifth cut-off would exclude several corporate leaders known qualitatively to be key business representatives. Furthermore, the members of the inner-circle cluster have the highest average degree, closeness and betweenness centrality, all members of the inner circle should remain connected to each other in the same component, and the diameter of the inner-circle network should fall as clusters are peeled off. Hence the inner circle is the cluster in the network of linkers: (1) still holding more than half of all ties; (2) having, on average, the most central individuals; and (3) that does not exclude key corporate leaders.

A central inner circle of 171 members within the network of linkers is identified (see Table 1 and Figure 4). These inner-circle members are on average tied to 11.0 other linkers, up from an average of 7.3 for all linkers. Adding to this, the distance between the members of the network is reduced significantly. The average path length within the network of the inner circle drops from 4.3 in the network of linkers to 2.8 in the inner circle. With no path longer than five degrees inside the inner circle, this suggests a group with very high connectivity. However, inner-circle cohesion is not further improved by the same directors sitting on several boards together (Heemskerk and Fennema 2009); rather, the share of multiple ties drops from 9.4% in the networks of linkers to 7.8% in the inner-circle cluster. Some of the multiple ties outside of the inner circle reflect ownership structures within conglomerates, where several subsidiaries share board members from the holding company. These relations are less frequent in the inner circle than among the linkers. The inner circle connects 205 corporations, 96 of which are from among the top 200 corporations.

FIGURE 4: THE INNER CIRCLE IN THE NETWORK OF LINKERS

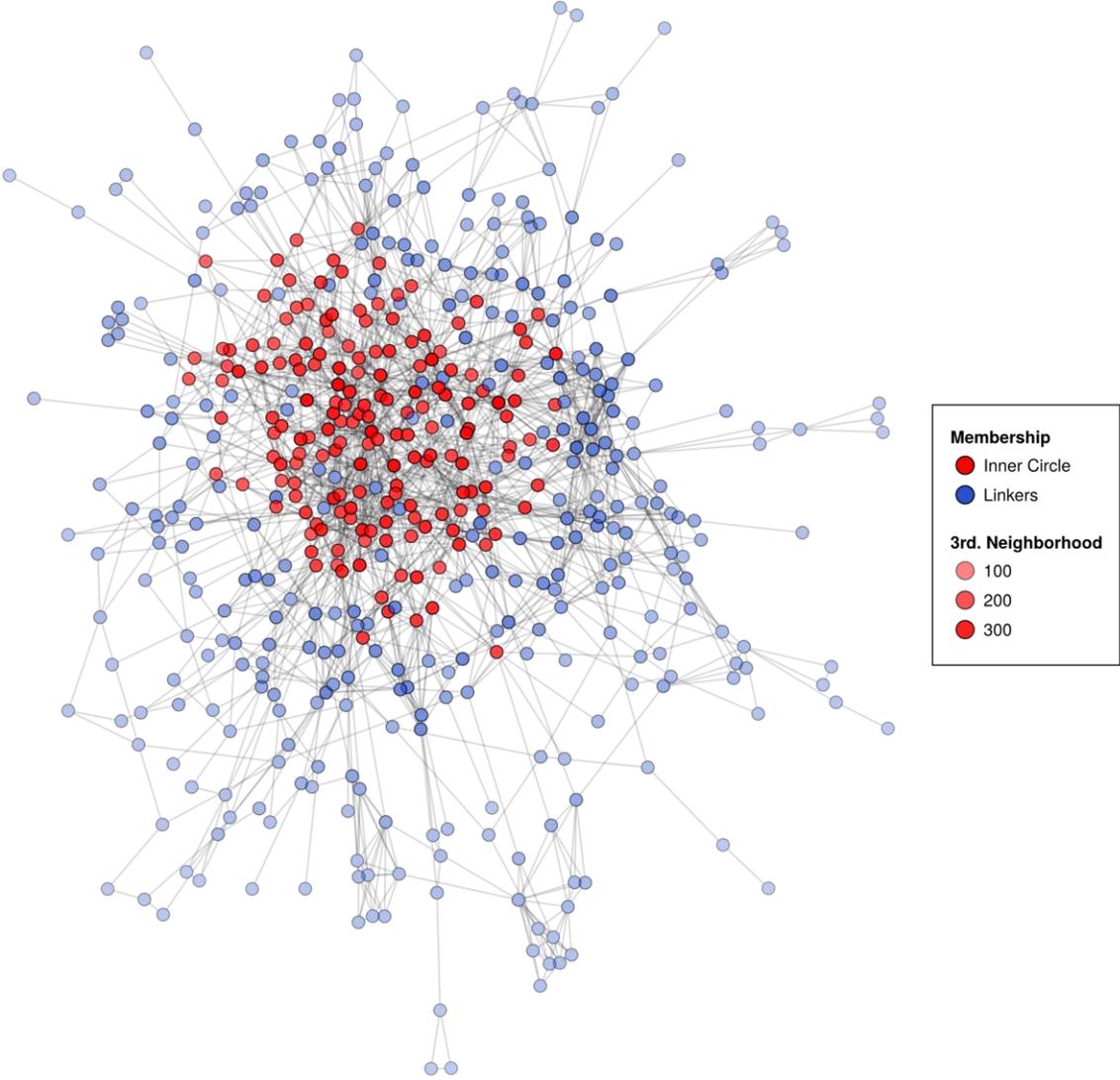


TABLE 1: THE CENTRALITY OF THE INNER CIRCLE IN THE NETWORK OF LINKERS

	ALL LINKERS	THE CLUSTER OF THE INNER CIRCLE
Edges	3728	1873
Density	0.014	0.043
Average degree	7.3	11.0
Diameter	13	5
Average path length	4.3	2.8
Share of multiple ties (%)	0.094	0.078
Average betweenness centrality	833	1555
Average closeness centrality $\times 10^{-5}$	4.7	5.3
N	514	171

Note that comparisons between the network of the inner circle and the network of connected and the entire corporate elite are not possible, as all hangers from these networks are removed.

Results: Who are the Inner Circle? The Reproduction of a Common, Unifying Culture

Aside from sharing connections through membership of the same corporate board-based social circles, other traits may create greater cohesion within the dominant segment of the corporate elite. Shared educational background, along with elitist social background, helps form elite consciousness (Bourdieu 1996; Hartmann 2000; Useem and Karabel 1986) and ensure a feeling of common trust within the circle. The members of the inner circle do, in general, share common traits (see Table 2). More than five out of six (84.2%) inner-circle members have employment only within the corporate world (see Table 2.); 52% hold an executive position, of which around two-thirds (59) are in one of the top 100 corporations based on turnover; and the remaining 48% are professional board members and often former executives. The members of the inner circle are at—or just past—the apex of their careers, with the median and average age being 57.7 years, with a standard deviation of only seven years. With no inner-circle members younger than 41 years, and as seen also in the skewed gender distribution, this is an “old boys’ network” in all senses of the term.

Only 14 of the 171 members (8.2%) of the inner circle are women, further underlining the social homogeneity and class-specific cultural norms where mastery of qualities traditionally ascribed to men is an advantage (Zweigenhaft and Domhoff 1998). In the corporate elite as a whole, 13.6% of

the positions are held by women, indicating that even after gaining access to the boards, women are still excluded from the networks that form and validate classwide rationality. There are no signs that women in the inner circle have particularly good network positions and they are not more frequently tied to each other. This supports claims of token female presence (Kanter 1977) rather than empowering women's networks to challenge the cohesion and cultural homogeneity of the inner circle.

Only a few inner-circle members have careers outside the corporate sector. These are two academics tied to business schools, six lawyers, a single active politician³, three central members of the farmers' organizations, and five top leaders of the Danish labor unions. These are included in the corporate elite primarily through their board memberships in pension funds and banks and are highly connected to each other. They are also tied directly to a quite large number of central corporate agents. The leader of the traditional right-wing blacksmith union (Dansk Metal), Thorkild E. Jensen, has the third highest number of connections of all members of the corporate elite. However, it is primarily the leaders of the strong unions with direct ties to industry who are included in the inner circle. Although it may be difficult to see these individuals as representatives of a classwide rationality, they may still be known well enough through these ties to be considered generally acceptable and non-subversive, akin to the "new men of power" described by Mills (1948). Thus the inclusion of labor union leaders into the inner circle should be seen as a remnant of the Danish corporatist capitalist economy based on class compromises as opposed to an inner circle fighting for the interests of untamed capitalism.

³ The mayor of a rural municipality, who serves as political representative on boards in several government-owned corporations.

TABLE 2: PROFILE OF THE INNER CIRCLE

	N	Percent
<i>Corporate position</i>		
Chief executive officer	59	34.5 %
Executive	30	17.5 %
Board chairman	40	23.4 %
Board member only	42	24.6 %
<i>Other position</i>		
Corporate only	144	84.2 %
Lawyer	6	3.5 %
Leader, farmers' organization	3	1.8 %
Leader, trade union	5	2.9 %
Professor	2	1.2 %
Politician (mayor)	1	0.6 %
Owner of corporation	9	5.3 %
<i>Age</i>		
Mean (s.d.)	57.	(7.1)
<i>Gender</i>		
Female	14	8.2 %
<i>Place of birth</i>		
Copenhagen area	44	34.6 %
Provincial cities (2.000-300.000)	46	36.2 %
Rural	26	20.5 %
Outside Denmark	11	8.7 %
Not known	44	
<i>Fathers occupation</i>		
Manager (or owner)	32	30.5 %
Professional	25	23.8 %
Junior manager	8	7.6 %
Self employed	15	14.3 %
Farmer	10	9.5 %
White collar	6	5.7 %
Blue collar	9	8.6 %
Not known	66	
<i>Education type</i>		
Arts and humanities	4	2.5 %
Social sciences	5	3.1 %
Law	11	6.7 %
Business and administration	64	39.3 %
Economics	30	18.4 %
Engineering	25	15.3 %
Science or medicine	11	6.7 %
Professional	13	8.0 %
Not known	8	
<i>Highest qualification</i>		
Doctorate	14	8.6 %
Higher degree	92	56.4 %
First degree	36	22.1 %
Professional qualification only	21	12.9 %
Not known	8	
Total	171	100 %

Fewer than two-thirds of the inner-circle members have higher degrees or doctorates, which is comparable to the top Danish CEOs (Ellersgaard et al. 2013), but significantly fewer than would be expected in France or Germany, in particular (Hartmann 2010; Maclean et al. 2006). The degrees held are not very prestigious academically, as none of the academic titles obtained by inner-circle members have ever been among the top 25 programs as determined by the average grade required for admission, the sole criterion used since 1979. However, the inner-circle members originate from a select few university programs. Only four of the eight Danish universities and business schools⁴ have more than one inner-circle member among their alumni. And only 12.3% of the inner-circle-members have a university background outside business, economics, law, or engineering programs. The alumni of these different principal programs do not appear to form more cohesive subgroups within the inner circle. Thus little seems to suggest an internal division of the inner circle by particular professions, as is the case in France (Bourdieu 2005).

For the 105 we have managed to trace, the social background of inner-circle members is quite exclusive. More than half of their fathers were placed at the top of corporate hierarchies and/or were managers or professionals. The parents of 23 inner-circle members (13.5%) are listed in the Danish equivalent of *Who's Who* (*Kraks Blå Bog*), suggesting a very elitist background⁵. The birthplaces of the inner-circle members are more or less as geographically dispersed as the general population. This is somewhat surprising as the elite in Denmark are concentrated strongly around the capital of Copenhagen. This may suggest that the inner circle is recruited from a broader upper stratum based on habitual dispositions rather than from the core of a socially integrated metropolitan elite, perhaps because of the strong provincial and agricultural ties of Danish business. The general principal of admission appears to be having the right dispositions in the form of interests, manners, and ethics, rather than the inheritance of different forms of resources, such as connections and wealth. The differences in habitual dispositions between the middle and working classes may therefore explain the massive under-representation of working-class children.

⁴ The universities with more than one alumni in the inner circle are Copenhagen Business School (41), University of Copenhagen (30), Aarhus University (19), and Technical University of Denmark (11).

⁵ There is little indication of network ties or more cohesive subgroups based on shared social background.

Recruitment to the networks of the corporate elite does not appear to be based primarily upon family ties, or an *upper class principle* (Useem 1982), although not being of too different a class origin certainly appears to ease access to the inner circle.

Inner-circle Membership and Corporate Political Representation

So far, we have seen that the networks of the Danish corporate elite seem to have a highly cohesive central circle and that the elite are organised along classwide principles, rather than solely from the corporate or upper classes—And yet a core feature must still be present before it is possible to identify this group as an inner circle; namely, the prerogative of being the primary ambassadors of business in other power spheres. In Table 3, we explore the political representation of the inner circle. Although the other groups of the business elite in total outnumber inner-circle members in these diverse power networks, it is also clear that members of the inner circle are far more likely be part of all these types of networks than are other members of the broader business elite. As the following summary of our findings of the political representation in different spheres will show, the members of the inner circle are not the exclusive political representatives of the corporate elite. However, the logic of inclusion of businessmen in other power networks appears similar to the principles behind inclusion in the inner circle.

Perhaps the most important and least surprising sphere for political representation of the rationality of the inner circle is various business or employers' associations, along with their branch- or policy-specific subcommittees. This institutional setting is at the same time the most important institutional venue through which the inner circle can present and impose its interests as the interests of the wider corporate class. More than one-third of the members of the inner circle hold positions on the committees of Danish business associations, compared to less than one-fifth of the linkers and less than one-tenth of the rest of the corporate elite. More than 40% of the inner-circle members who have a seat on a business association committee sit on one of the 15 central committees. Furthermore, almost 10% of all members in the core committees—which include various specialists from both corporations and business associations—also belong to the inner circle.

TABLE 3: INNER CIRCLE REPRESENTATION IN OTHER PART OF THE FIELD OF POWER

	N	Percent		N	Percent
ECONOMIC FIELD					
<i>Membership of all business association committees</i> <i>Boards=464; Members=3659</i>			<i>Membership of core business association committees†</i> <i>Boards=15; Members=257</i>		
Inner Circle	57	33.3 %	Inner Circle	23	13.5 %
Linkers	67	19.5 %	Linkers	20	5.8 %
Connected	179	6.7 %	Connected	40	1.5 %
Corporate Elite only	149	5.0 %	Corporate Elite only	21	0.7 %
POLITICAL FIELD					
<i>Membership of all commissions and advisory bodies</i> <i>Boards=73; Members=1038</i>			<i>Membership of core commissions and advisory bodies†</i> <i>Boards=10; Members=250</i>		
Inner Circle	26	15.2 %	Inner Circle	20	11.7 %
Linkers	19	5.5 %	Linkers	6	1.7 %
Connected	53	2.0 %	Connected	28	1.1 %
Corporate Elite only	20	0.7 %	Corporate Elite only	5	0.2 %
ACADEMIC FIELD					
<i>Membership of other academic and research institutions</i> <i>Boards=1253; Members=109</i>			<i>Membership of university governing boards</i> <i>Boards=8; Members=91</i>		
Inner Circle	37	21.6 %	Inner Circle	5	2.9 %
Linkers	20	5.8 %	Linkers	5	1.5 %
Connected	43	1.6 %	Connected	4	0.2 %
Corporate Elite only	6	0.2 %	Corporate Elite only	1	0.0 %
CULTURAL AND MEDIA FIELD					
<i>Membership of cultural organization boards</i> <i>Boards=71; Members=568</i>			<i>Membership of media and public opinion boards</i> <i>Boards=23; Members=449</i>		
Inner Circle	6	3.5 %	Inner Circle	26	15.2 %
Linkers	6	1.7 %	Linkers	16	4.7 %
Connected	21	0.8 %	Connected	71	2.7 %
Corporate Elite only	8	0.3 %	Corporate Elite only	32	1.1 %
SOCIAL CAPITAL					
<i>Membership of all VL-networks</i> <i>Groups=114; Members=3823</i>			<i>Membership of core VL-networks</i> <i>Groups=9; Members=332</i>		
Inner Circle	75	43.9 %	Inner Circle	50	29.2 %
Linkers	97	28.3 %	Linkers	24	7.0 %
Connected	260	9.8 %	Connected	52	2.0 %
Corporate Elite only	151	5.1 %	Corporate Elite only	9	0.3 %
SYMBOLIC CAPITAL					
<i>Membership of foundation boards</i> <i>Boards=1394; Members=7179</i>			<i>Participation in royal events</i> <i>Events=73; participants=7374</i>		
Inner Circle	75	43.9 %	Inner Circle	49	28.7 %
Linkers	90	26.2 %	Linkers	47	13.7 %
Connected	281	10.6 %	Connected	132	5.0 %
Corporate Elite only	115	3.8 %	Corporate Elite only	50	1.7 %

†Core business association committees and core commissions are identified by having the highest eigenvector, betweenness and closeness centrality scores in an analysis of these organizational networks

Politicians and state employees are made aware of the policy interests of business through various channels. These include lobbying, direct personal meetings, and other social events. However, these contacts between top bureaucrats, politicians and corporate stewards are also institutionalized through commissions, councils and the advisory bodies of governmental agencies. Almost 15% of inner-circle members have participated in advisory bodies, councils, and commissions established from 2005 and onwards. More than one-third of all corporate elite representatives of core commissions are members of the inner circle, meaning that the proportions of inner-circle members in core commissions are more than 10 times higher than the rest of the corporate elite. When government wants to include the corporate community in policy debates, it is often the inner circle they turn to. Given the tendency to homophily in social networks, the recommended candidates will often be prominent in the networks of interlocking boards.

By influencing universities, the elite may both help form the skill-set of future employees while also influencing the research agendas that could produce knowledge yielding competitive advantage. Making the voice of business heard in the academic world may involve funding research through foundations, as well as through participation on the boards of different academic institutions, including university governing boards, advisory boards of particular departments or national research centers, and various committees on higher education. In these networks, members of the inner circle are more than 100 times more likely to participate than the members of the corporate elite who are not connected to the large component of corporate interlocks. On the governing boards of eight Danish universities, one-third (five of the 15) university board members are part of the inner circle. The academic field appears to be quite selective when including business representatives on their boards and the prerequisites seems to be heavily associated with inner-circle membership.

Further, representation on the boards of museums of art or history, theatres, and opera companies is, among other things, an opportunity for business representatives to defend upper-class culture. Even if only 3.5% of inner-circle members sit on these boards, the inner circle is still disproportionately represented compared to other parts of the corporate network. However, where the social and political legitimation of corporate interest is at stake, rather than merely looking to the reproduction of “high culture”, we see a stronger representation of the inner circle in the production of public opinion: 15% of inner-circle members sit on the boards of TV and radio companies,

newspapers, publishers, and the five major think tanks, making the inner-circle members three times more likely to sit on these boards than even the linkers. As an indicator of social capital outside the network of the boardroom, the participation in the VL network—groups of around 30 members from business, state bureaucracy, media, and academia, who meet informally once a month—offers a glimpse of network cultivation strategies among the corporate elite. Almost half of the inner-circle members are active in the VL groups and 28.8% of inner-circle members are part of the nine core groups, identified by the prestige of their fellow members.⁶ Access to diverse top level networks thus appear closely tied to the logic behind inclusion into the inner circle.

Inner-circle members hold positions bestowing high symbolic capital on their holders more often than other members of the corporate elite. This helps form a generalised trust in the good name and honour of inner-circle members (Bourdieu 2005). Membership on the boards of one of the 1394 publicly registered foundations can be seen as an indicator of symbolic capital. These foundations administrate the fortunes and charity activities of rich family dynasties, and as a result indicate the social standing of its directors among the moneyed class. Foundation board membership also opens to influencing other sectors through donations and as a platform for intra-elite networking, and 44.7% of inner-circle members hold a position on one or more of the foundations.

The honour associated with being invited to a royal event is an indicator of a person's social standing and importance within the elite as well as in the eyes of state agencies aiding the court in composing the guest lists. When looking at participation in major royal events—weddings, anniversaries, landmark birthdays, christenings of princes—as well as royal hunting parties and recent royal dinners, inner-circle members once again appear as the primary ambassadors of the corporate elite. Since 1998, twice as many (27.6%) inner-circle members than linkers have participated in one or more of the 73 recorded royal events.

Useem (1978:227) originally used the amount of board memberships as an “appropriate though imprecise” measure of inner circle centrality. When compared to the inner circle identified in this

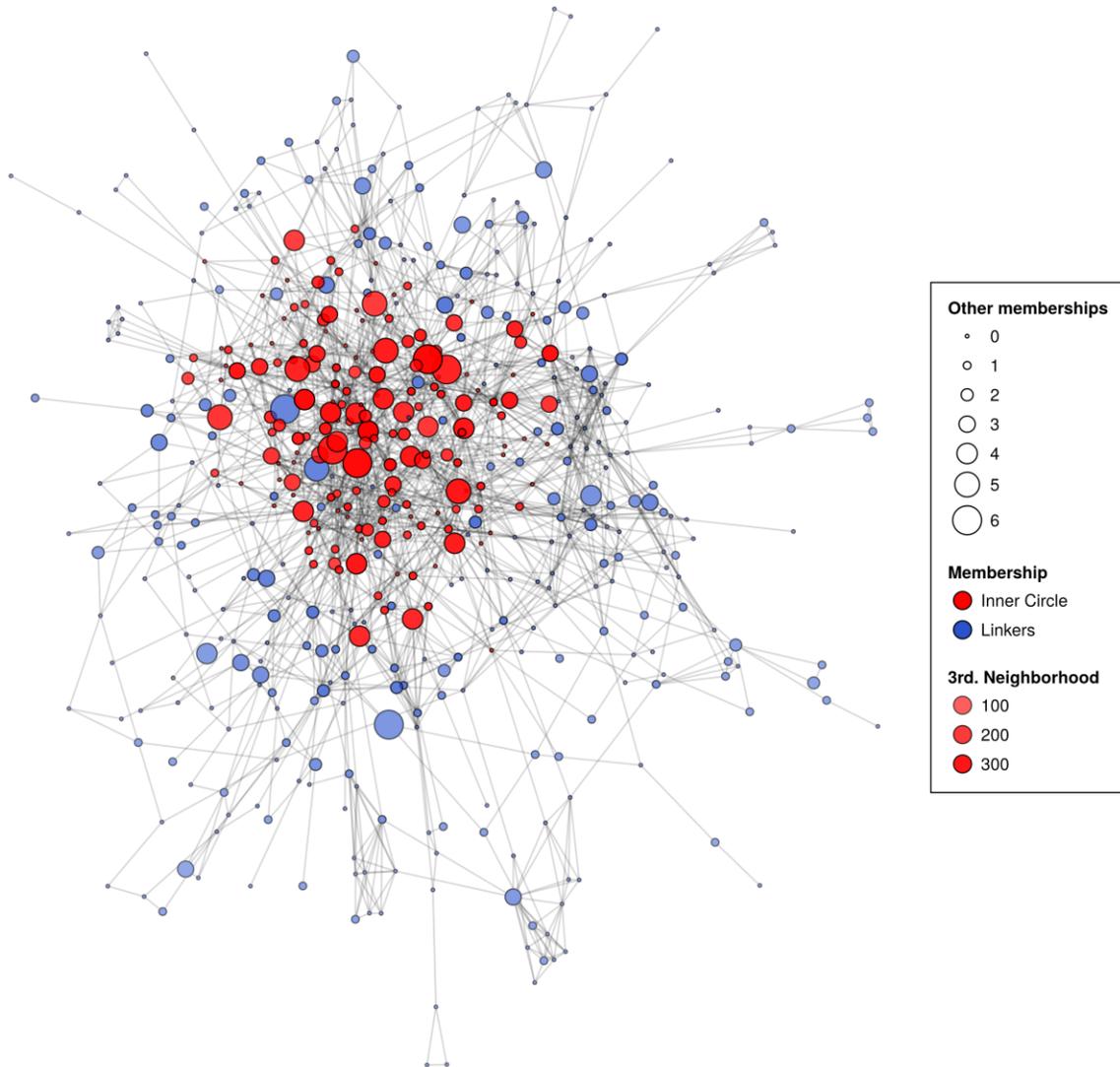
⁶ The indication of the core group status of a VL group is participation in these groups of government permanent secretaries, leaders of top business associations, editors-in-chief of national newspapers, and leaders of major public institutions such as universities and museums.

paper the same association of board membership and inner-circle centrality is found. However, when compared with the 206 members provided with Useem's definition of the inner circle based on at least three board memberships, the 171 inner-circle members identified here are 1.25⁷ times more likely to be part of institutions of the different power spheres identified in Table 3. Proximity within the most central parts of the corporate network is therefore a better, although more demanding, measure of inner-circle centrality.

This is illustrated by Figure 5. The size of the points relates to the number of sectors (as defined in Table 3) in which each individual holds positions. The parts of the network with the densest connections also have the most well-connected individuals across sectors. The Matthew principle is clearly in operation. A quarter of the inner-circle members sit on at least three boards from sectors outside business, compared to 6% of the linkers and only 1% of the connected. From the unconnected part of the corporate elite, 94% are not part of any board outside business, whereas only 30% of the inner-circle members do not hold at least one of position outside business. However, Figure 5 also illustrates the somewhat arbitrary character of any classification. Just outside of the inner circle, there are several individuals, close to the inner circle, who connect across many sectors. These individuals might have had the necessary proximity if networks other than boardroom interlocks had been included in the definition of the inner circle. As Useem (1979) notes, the inner circle is bound together by many other forms of ties and further studies should try to include them as well. These reservations aside, it appears from this analysis that across all spheres of power, the inner circle are the primary ambassadors of corporate interest.

⁷ The ratio of inner circle members to holders of at least three board with regard to positions in other sectoral networks, see table 3, ranges from 0.90 (on cultural organization boards; the only ratio less than 1.06) to 1.53 (university governing bodies).

FIGURE 5: THE INNER CIRCLE IN NETWORKS OF OTHER PARTS OF THE FIELDS OF POWER



Size of nodes indicates number memberships in the nine other power networks presented in Table 3. Only the core networks of business association committees, political commissions and VL-groups are included.

Implications: The Power of the Inner Circle

Even if the cohesion of the inner circle is demonstrated satisfactorily and its prominence in the representation of the business elite is indicated, the actual political influence of the inner circle is still

unclear. Scholars have tried to trace corporate influence by looking at direct political sponsorships (Bond 2007; Burris 2005), but the political campaign contributions are held secret by Danish political parties, making it difficult to “follow the money”. But even if the money trails could be documented, the influence gained through these donations is hard to estimate. Contributions are also made through the business clubs of the two main traditional right-wing parties. Two centers in the inner circle are former heads of these business clubs and thus can be used as extreme cases of the connections between the inner circle and others holding power or prestige. Henning Kruse Petersen, chairman of the Conservative Business Club, is ranked first in betweenness centrality, second on degree and third on closeness centrality. He is a former CEO of the largest Danish mortgage provider *Nykredit* and chairman of the board of the state’s crisis bank *Finansiel Stabilitet*, along with several other board positions. He is also very wealthy.

Even wealthier is Fritz Schur, chairman of the Liberal Business Club, who owns a top 100 corporation while also serving as chairman on the boards of three of the largest state-owned firms: energy giant DONG and the inter-Scandinavian airline SAS and postal service Posten Norden. Schur is ranked between 22nd and 26th in degree, closeness and betweenness centrality. He also plays a key part in the social elite Schur holds grand soirées in his mansion and an estimated 2000 people—businessmen, royalty, politicians, and celebrities—pass through his salons annually (Sandøe, Sindbæk, and Svaneborg 2012). Furthermore, in less than 10 years he has ascended the honorary hierarchy of the royalty, reaching the rank of *Kammerherre* [Chamberlain]. The numerous connections of Fritz Schur all met at the celebration of his 60th birthday, where the royal family, current and former ministers of both the left and right, celebrated actors and authors, and many inner-circle members gathered to be entertained by, among others, Elton John. The social life of Fritz Schur may provide only anecdotal evidence of a generally closed world, but it hints at how the inner circle converts economic resources to symbolic power.

These findings strongly imply that the inner circle in Denmark is part of a broader power elite (cf. Mills 1956). This power elite comprises overlapping circles that connect individuals centrally placed in the important institutions in Danish society. With the general decline in the cohesion of corporate elites elsewhere, this is surprising. Although our data do not tell us anything about the historical evolution of the corporate elite, they are quite precise on the current state of inner-circle integration with other power spheres. This suggests that in spite of corporate elite fracturing elsewhere, the

inner circle remains a valid concept, useful for exploring the social organization of the capitalist class in Denmark. However, the extended network outside the boardrooms also implies that inner circle formation is in no way restricted to the networks created by corporate interlocks. Several CEOs of the largest Danish corporations only have one directorship and are thus excluded from our definition of the inner circle, but hold several posts in other sectoral networks. Future scholars with interests in the inner circle should aim to incorporate these networks into one broader network of the corporate community.

So far, the challenge of the emergent transnational business community to inner-circle cohesion in Denmark seems to be limited. Only two inner circle members are members of important informal networks, the European Round Table of Industrialists and the Trilateral Commission (Carroll and Sapinski 2010). One sits on several boards of European Fortune 500 corporations and four Danish corporations have been able to attract foreign directors of these corporations to their boards. Several inner-circle members are connected to the group of global interlockers through boards outside Denmark as well. However, these connections do not point to the formation of an international network in competition with the coherence of the Danish network, but rather as the fruits of success, granted only to the most prominent members of the inner circle in Denmark. The obligation to continue to fit into the unifying culture of the inner circle is seen by foreigners as the inner circle in Denmark. Ten of the 11 inner-circle members born outside Denmark are from other Nordic countries, primarily Sweden. Nevertheless, ties made across borders could change the allegiance and primary focus of some parts of business. Both intra- and transnational ties, and the temporal dimension, should be analyzed simultaneously in future research on interlocking directorates.

Conclusion: The Accumulation of Power Through Networks

Through a social network analysis of the 1037 most important corporate boards in Denmark, we identified an inner circle of 171 board members and executives. This inner circle is the most cohesive group tied through shared board memberships. The social background of the inner-circle members does not imply an upper class-based capitalism in which shared ownership and kinship relations are the integrating elements of the capitalist class. While showing a high degree of cohesion within the social networks of the boardrooms, the inner circle is also more connected to other

power spheres than the rest of the business elite. Thus, the inner circle is more likely than the other parts of the network of the corporate elite to take part in the activities and institutions that indicate representation in the field of power. From the economic sphere of business associations, to the forming of policies in political commissions, the governing of universities and research agendas, the central institutions of culture and media, and the symbolic status of participating in royal events, the faces of inner circle appear with stunning regularity.

This study demonstrates the usefulness of the concept of the inner circle developed by Michael Useem for understanding the social organization of the corporate community in the case of an egalitarian society such as Denmark. In spite of the recent deterioration and internationalization of the inner circle elsewhere, the specific position of the capitalist class in Denmark seems to ensure continued cohesion. Rather than challenging inner-circle cohesion, the strong position of organised labor actually led to key private sector labor union leaders being included in the inner circle of the corporate network. The apparent egalitarianism of Denmark does not prevent a socially homogenous group of businessmen, recruited primarily from the upper echelons of society, from being tied closely through corporate boards and frequently invited to join the networks of other power spheres.

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APPENDIX: CLUSTER ANALYSIS IDENTIFYING THE INNER CIRCLE

	LINKERS	1 ST CUTOFF	ICI	2 ND CUTOFF	IC II	3 RD CUTOFF	IC III	4 TH CUTOFF	IC IV	5 TH CUTOFF	IC V
Total number of clusters in HAC	1	2		3		7		19		33	
NETWORK CHARACTERISTICS OF CLUSTER											
Number of members	514	134	380	158	222	34	188	17	171	21	150
Density	0.0283	0.0134	0.0335	0.0219	0.0418	0.0454	0.0411	0.0252	0.0427	0.0395	0.0431
Components	1	43	1	28	1	4	1	9	1	4	1
Diameter	13	-	7	-	6	-	5	-	5	-	5
Average path length	4.3	-	3.0	-	2.9	-	2.9	-	2.8	-	2.8
Transitivity	0.417	0.613	0.416	0.586	0.439	0.728	0.412	0.857	0.419	0.783	0.427
CHARACTERISTICS OF CLUSTER MEMBERS											
Share of total ties	1.0	0.124	0.876	0.238	0.638	0.106	0.532	0.030	0.502	0.057	0.445
Average degree	7.3	3.4	8.6	5.6	10.7	11.6	10.5	6.5	11	10.1	11.1
Average closeness ×10 ⁻⁵	4.7	3.7	5	4.5	5.3	5.1	5.3	4.9	5.3	5.2	5.4
Average betweenness	833	265	1033	519	1400	907	1489	824	1555	1267	1595
Common denominator of cut-off		Minor boards		Minor boards Specific ownership groups		Bankers State ownership		Minor boards Lawyers		None	

4. Who listens to the top? Integration of the largest corporations across sectoral networks

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Abstract

By creating ties to other powerful organisations, corporations may influence the rules, written or unwritten, that influence the market they operate in and avoid competition. The corporate interlocks created by board directors show how some corporations are more successful in integrating, not just in the corporate world, but also in other sectors. Neil Fligstein proposes that the best-organised dominating corporations, or the incumbents, are the most successful in stabilising their markets. An analysis of the intersection between the interlocking directorates among the top 1037 corporations in Denmark and seven other sectorial networks drawn from a database containing more than 5,000 affiliations and 62,000 positions, how that the incumbents are better integrated across all sectors. The strong correlation between sectorial integration and turnover was decomposed and an independent effect of prominence, or symbolic capital, was found. This suggests that, when creating affiliations within and outside the corporate world, it is not only the symbolic size that matters, but also the prestige of the firm.

Introduction

A prominent business chairman juggles with the responsibilities of several top corporate boards, a national theatre, a public commission and committees in employers' associations, all while attending the most glamorous events where the guest lists are a veritable who's who of high society. Super-connectors like this man are on the lucky receiving end of the Matthew principle, where more connections get you access to even more and better connections. Connections into the core of the business world grant the possibility to influence not just the strategies and outlooks of the corporate world, but also the state and society at large. When looking at these prominent figures it is easy to get lost in the details and character of the individual. Where did they go to school? Who were their parents? Are they connected to public officials? These are all valid questions, but it is important to note that such great influencers may owe most of their influence not to their individual particularities but to the strength of the organisations they represent (Scott 2003). These corporations do not lend out their most prominent employees and leaders willy-nilly, but because the ties they make matter to the survival of the corporation.

In economies with considerable volatility and frequent state intervention it is paramount for corporations to be 'in the know', because knowledge held by the powerful is power in its own right (Bourdieu 1996:386). Ties with state officials, top bankers and editors of national newspapers all facilitate the necessary 'business scan' at a quality and speed that surpasses that of hired consultants and experts (Useem 1984:46). Ties are not just the channels for 'power gossip'; they also provide a means of influence, sometimes in the soft form of advice and at other times in the hard form of orders and strategy formulation. The best-organised corporations are able to use these ties and other channels to form the regulations and the institutions that shape the rules around their most important markets (Fligstein 1996:662)

This paper will focus on central characteristics, the symbolic and economic capital, of the top 1037 corporations, and on how these affect the degree to which they integrate with seven central sectors in Danish society. Drawing on concepts from Neil Fligstein and Pierre Bourdieu and applying a social network-analytic approach, this paper gives insights into the organisational underpinnings of the networks of the Danish corporate elite.

Interlocking directorates within the business elite are a social phenomenon that has been the subject of intense attention from sociologists (Scott 1991a); social network analysis (Scott 1991b) is a preferred method for the study of corporate interlocks (Mizruchi 1996). Recent studies have shown how interlocking directorates affect, among other things, CEO compensation programs (Wong, Gyax, and Wang 2015) and political donations (Burriss 2005). Studies of the relationship between the corporate elite and other sectors

have found considerable linkages between CEOs of the largest corporations and NGOs (Moore et al. 2002), between CEOs and universities (Useem 1981); and a decline in the number of ties between state and corporations (Heemskerk, Mokken, and Fennema 2012). But studies of interlocking directorates have been criticised by economic sociologists for being blind to the way histories, laws and states affect the role and influence of the ties in the corporate network (Fligstein 1995). From this criticism it follows that it is important to situate the ties in the institutional framework of each country. This includes the importance of ownership structures, which affect how boards interlock (Bohman 2012) This criticism will be addressed by looking at some of the key institutions that have influenced and continue to influence Danish economy; for example, the co-op movement, the financial sector with its unique relationship to unions and employers' associations through pension funds, and the position of the subsidiaries of the largest multinational corporations.

An open and negotiated economy

To explain the integration into the corporate networks of Denmark, I first a brief describe the particularities of the Danish economy. Denmark is a small but wealthy country with a business system that is primarily driven by oil, shipping, banking and food production. The Danish economy is dominated by a few very large corporations. The largest corporation in Denmark is the conglomerate A. P. Møller, with a turnover of 315 billion kroner. In 2012 it placed 154 on the Fortune Global 500 as the only Danish company. The largest employer in Denmark is ISS, with approximately half a million employees. These two are some of the few Danish corporations that are global players, but within certain markets there are several large Danish exporters, such as Novo Nordisk, Lego, Carlsberg, Arla, Danish Crown and Vestas. These exporters have the majority of their sales outside Denmark and many have relatively few employees inside the country. The portant export markets are the other Scandinavian countries, United States, Germany and the rest of the European Union.

The Danish economy is an open (Binda and Iversen 2007; Iversen and Andersen 2008) with a strong presence of the largest global corporate players, but the recruitment to Danish top management in these corporations is nevertheless very national (Ellersgaard, Larsen, and Munk 2013; van Veen and Marsman 2008). This dichotomy between openness and nationalism is characteristic of the Danish corporate network. Nationalism is reflected in the position of Danish firms in the European network of interlocks. Danish corporations are on the periphery, but in the period from 2005 to 2010 they have become integrated with countries outside of Scandinavia (Heemskerk 2011, 2013).

As a coordinated market economy (cf. Hall and Soskice 2001), the Danish economy and labour market are regulated not by the state alone, but by a triumvirate of the state, unions and employer associations. Through institutionalised negotiations and many different legal institutions, this triumvirate regulates and controls not only the labour market, but many other areas as well, from pensions and taxation to environmental policies. Although this system has declined since the 1980s (Blom-Hansen 2001), there are several consequences for the corporate networks of the Danish economy. As an example, the vast majority of pension funds are controlled by the triumvirate or directly by the unions. Having strong ties to large parts of the Danish financial market also entails relations with unions. This division of labour between the state and the triumvirate may explain why the Danish state has comparatively few state-owned corporations. Among the top 100 corporations in 1990, the Danish Government owned a dominating share in only 13.2%. In the same year in France, the country's government dominated shares in 36.4% of corporations; in Finland, 27.6%; and in Austria, 33.9% (López de Silanes, La Porta, and Shleifer 1999; Pedersen and Thomsen 1997) is was in an economy where the state controlled 27% of the GDP (Statistics Denmark 2012).

Even if the Danish state has fewer corporate ownerships than might be expected, corporate ownership in Denmark is still far from the Anglo-Saxon model of dispersed ownership corporations. Of the 170 corporations registered at the Danish stock exchange, only 88 were among the top 1037 Danish corporations and were therefore included in this study. This reflects a modest financialisation of the Danish economy, which in turn may reflect the particularities of the Danish corporate owners. The strong cooperative movement, business families and the widespread use of foundations all account for this modest financialisation (Binda and Iversen 2007). Furthermore, legislation prevents executive directors from the banking sector from sitting on the boards of other corporations (Edling et al. 2012). In 1990 the co-ops accounted for ownership of 19.9% of the top 100 non-financial corporations in Denmark. This was the highest level of co-op ownership among the 12 countries included in the study by (Pedersen and Thomsen 1997). Even though the co-op movement was originally founded by Danish dairy farmers, co-ops also account for a substantial part of the financial market in Denmark. This particular ownership structure affects the population of directors on the boards of Danish corporations. Co-ops have democratically elected board members and foundations often have board members from sectors other than private business.

The institutional framework of the Danish state, along with an open and negotiated economy and a tradition of strong ownership, makes an interesting case for investigating the relationship between economic and symbolic resources and ties between the corporate and other sectors.

The Danish case differs from other economies by having an interventionist state and a strong labour force

and therefore it serves as an exemplary case for small corporatist countries (cf. Katzenstein 2003).

In brief, this paper uses the Danish case to investigate:

1. which corporations are included in the corporate interlocks in Denmark
2. which corporations are able to extend their network to other sectors, such as business associations, foundations, state institutions, interest groups, institutions of science and education, cultural networks and symbolic gatherings (e.g. the royal balls).

These will be explored by assessing the financial power and the symbolic resources at the disposal of the corporation.

Fields, incumbents and symbolic capital

The networking practices of a corporation are the result of active decisions and strategies from the top of the corporation (Useem 1984). The position of the corporation within the entire economic field and its relative dominance within its primary sectors are the determining factors for this strategy. This study draws on the notion of the economic field coined by Pierre Bourdieu (2005) and the general field theoretical framework recently restated by Neil Fligstein and Doug McAdam (2011). Although inspired by field theory, the present analysis is not a fully-ledged field analysis that identifies the dominant forms of capital and divisions within the Danish economic field. Instead, this study zooms in on the characteristics of the corporations and the relationship of those characteristics to ties between corporations and other sectors, but still within a relational framework (Emirbayer 1997).

In Neil Fligstein's (1996, 2002) economic sociology, markets are not defined by their product, but are best understood as socially constructed fields. These fields, or strategic action fields, have a governing structure and rules of exchange. The governing structure is the institutions and legal framework that defines the rules for competition between the corporations within the field. The rules of exchange are the rules governing exchanges between corporations. The rules of exchange and the governing structure, along with the distribution of power and resources within the field, set the space in which leaders within the top corporations struggle over the strategy and toolset used to navigate the field. The leaders who define the conception of control (Fligstein 1996) are those who are best at defining a strategy that, using Fligstein's conception-of-control terminology, avoids damaging price competition, stabilises the field and ensures the survival of the corporation.

In a stable market (or field), the dominant firms, the incumbent firms and the challenger firms form a clear

status hierarchy. The challengers may slowly renegotiate the governing structure of the field, but according to Fligstein (1996), they are unable to fundamentally challenge the position of the incumbents. Fligstein observed that radical change within the field primarily happens as a result of exogenous shock.

The state plays a central role in defining the governing structure of the field. The state stabilises fields by enforcing laws and setting rules. These rules are never 'neutral' but give advantages to certain sets of actors, most often the incumbent corporations. As Fligstein (1996:662) argues:

'Laws and accepted practices often reflect the interests of the most organized forces in society.'

Emphasis should be placed on the phrase *'the most organized'*. Corporations that, as a part of their conception of control, organise support for and formulate policies that may turn into regulation, have a greater chance of forming the rules of the field and thereby stabilising the field in a state that is beneficial to them. This resembles the perspective on the individuals who form the inner circle in the corporate network, formulated by Michael Useem (1982, 1984). These individuals formulate the class-wide rationality of the organised capitalist class. If we focus on the corporations instead of the individuals, we could propose that corporations that are in a position where it is possible to influence state policies and have such intentions within their conception of control, will form ties to the state in order to influence the rules that govern their field. The corporations that are able to influence the formulation of the state policies are, according to Fligstein (1996), the incumbent corporations.

Fligstein and McAdam (2011) give a specific prominence to the fields that make up the state, but in a Danish context this perspective is too narrow. As noted earlier, there is a substantial part of the governing structure of all markets that is not controlled by the state but by employers' associations, business organisations and unions. Some markets are so strictly regulated by these institutions that competition has been removed almost completely, most notably the pension funds.

To properly describe the relationship between incumbent corporations and the governing institutions it is necessary to broaden the perspective away from the state to an elite wide-integration. Or to stay in the field terminology, but from the French tradition, incumbent corporations within the economic field integrate with agents across the entire field of power (Bourdieu 1996:267).

The relative amount of resources held by a corporation is what determines its position within the status hierarchy within the field and thereby which corporations are incumbent and challengers. Among corporations it would seem obvious that status position should be a result of economic strength, measured in variables as turnover, equity and number of employees. But this may well be far too simplistic. As

Bourdieu has shown in several works (Bourdieu 1986, 2005, 2007), there is a central symbolic component to economic rationality and to the distribution of status among top corporations. The symbolic form of capital is, for example, honour, goodwill, reputation and favours (Bourdieu 1986), which also work as a form of symbolic credit (Bourdieu 2005:200). But Bourdieu notes that these symbolic forms of capital are, in the end, a disguised form of economic capital (Bourdieu 2007:183). We would therefore expect symbolic forms of capital to correlate strongly to the economic measures of capital, but measuring symbolic forms of capital is difficult if the analysis is not part of a full mapping of the field. In the following analysis the number of books about the firm and its media presence are used as indicators of symbolic forms of capital. The number of books about a firm indicates the extent to which people, often within the cultural field, have expended a considerable amount of energy on producing often positive descriptions of the corporation. It signals that the corporation should be noted and that it is worthy of praise, or at least attention. Because the number of books is the total amount of books written about a corporation it is also a measure of how long the corporation has been a notable player in the field, because older corporations have had a longer time to accumulate attention. It is not a measure of how much attention and praise the corporation receives now; this is captured by presence on TV and radio. These measures are of course very crude, but they are sufficient for the current analysis.

The position within the field of the corporation and the larger economic field in which these smaller fields are embedded is a determinant of the conceptions of control that guide the role played by ties between corporations and other sectors. The most prominent firms at the top of the status hierarchy, the incumbents, will try to stabilise the field in a form that benefits them. The corporations with the most status will therefore try to make ties more frequently than others. Because they are more prominent, they will also more often succeed.

Network data

The data on the corporate network were taken from the boards of the largest 1,024 companies registered in Denmark, in which there are 6,154 directors. The data were kindly donated by the private firm Biq.dk and originate from the official CVR (Central Corporate Register) register. The largest corporations were chosen according to turnover. Subsidiaries were excluded if the board comprised only members from the mother company. The board of each corporation included the chairman, ordinary members, the CEO and other senior managers and members representing the employees. With this sample size it is possible to describe the differences between the largest corporations and the rest, while avoiding the inclusion of corporations in which board interlocks are governed by very different principles. In very small

corporations, boards often include lawyers, who may hold more than 30 or even as many as 100 board positions.

Data on the other sectors were drawn from the Danish Elite Network (DEN) 2013 dataset with a near-complete set of official affiliations at the national or regional level. The dataset includes all NGO's with a hearing right, all commissions and cross-organisational affiliations in the state, all foundation boards, the leadership network Danish Management Society (VL), and all subcommittees in the parliament. Furthermore, the data include several events, most prominently all publicly listed royal balls, dinners and hunting parties from 2009 to 2013. In addition to the set of corporations described above, the dataset includes structurally important corporations, such as the media and law firms.

Each affiliation in the DEN is tagged with up to seven tags. The affiliations are tagged according to type, and most importantly the sector and the subject of the operation. By constructing lists of tags, it is possible to split the network into sectoral networks. The sectors are not mutually exclusive. Table 2 lists the different sectoral networks, along with their size.

TABLE 1: DATA SOURCES FOR THE AFFILIATIONS IN THE NETWORK

	FROM ORIGINAL SOURCES	EXCLUDED*	ADDED IN SNOWBALL SAMPLE	FINAL NUMBER OF AFFILIATION NETWORKS	NO. OF RELATIONS
State ¹	2,328	1,780	327	875	10,230
Parliament ¹	153	101	31	83	970
NGO ¹	749	144	922	1,527	16,436
Corporations ²	1,136	34	40	1,142	7,476
Foundations ²	1,380	18	83	1,445	8,181
VL Networks ³	117	3	0	114	3,845
Commissions ⁴	116	44	0	72	1,121
Events ⁵	74	0	0	74	14,582
Total	6,053	2,124	1403	5,332	62,841

¹ Source: Danish Public Administration Database (www.foa.dk)

² Source: The list of largest corporations according to turnover and list of all foundations in the Danish Central Business Register (obtained through www.biq.dk)

³ Source: Homepage of VL networks (www.vl.dk)

⁴ Source: Registration of political commissions from 2005-2011 made by Danish weekly newsletter *A4* Sources: Webpage of Danish Royal Family (www.kongehuset.dk) and private archive of journalist.

*Affiliation networks were excluded if: no board of extra-organisational members existed; no information was available on the board, either online or through personal contact; the board was included in other sources as well; or the board entirely overlapped another board within the same organisation.

The business organisations' sector includes business interest organisations and employers' associations. It consists primarily co boards and committees in smaller business interest organisations (e.g. the organisation

of Danish Harbours), but also larger employers' organisations like the Danish Confederation of Industry. 'Culture' is mainly made of cultural foundations, museums, art galleries, theaters and design institutions. The interest groups' sector comprises interest groups that are not present in the other categories, and includes organisations such as national sports associations, environmental protection organisations and charitable foundations. The 'Science and education' sector contains not only scientific institutions such as university departments, research institutions and foundations supporting science, but also state committees on science and education. The state sector includes commissions, leading affiliations in the military, state-owned corporations, committees within the state administration and ministry and leadership networks among leaders of the public sector. The 'royal' network comprises primarily of royal events such as, balls and dinners with official dignitaries, as the premier minister of China. The 'leadership' sector focuses on networks that allow leaders to exchange ideas and contacts, working as social clubs to enhance elite cohesiveness (cf. Domhoff 1975). The most prominent of these is the VL- groups, which gather together corporate CEO's and high-ranking public officials, editors of newspapers, architects and politicians. 'All non-corporate sectors' is the sum of all the networks except the corporate sector.

Measures of economic and symbolic capital

Data on turnover, equity and the number of employees originates from the yearly reports of 2011, which means the data covers the size of the corporation in 2010. This means that the three different data sources are from three different years. Corporate board memberships were taken from 2011 and sectoral networks from 2013. Although there has been some change in the size of the corporations and especially in the turbulent years following the global financial crisis in 2008, there is no reason to expect substantial changes in the size of the corporation or in the composition of the boards.

The data on corporate size are fairly reliable, but there are marked differences in accounting practices, especially when it comes to holding corporations with several subsidiaries. Some corporations aggregate the turnover and equity of the subsidiaries in their holding corporations, and others transfer only the profits of their subsidiaries. This means that the size of some corporations was underestimated and may have been excluded from the sample or positioned relatively lower in the turnover distribution.

Measures of the prominence of the corporation to the general public were based on the number of books about the firm and the extent of media presence. The National Bibliographic Database has an almost complete list of books published in Danish or concerning Denmark. This database also includes most of the master's theses written at the largest business schools in Denmark; these accounted for a large

proportion of the relevant publications for each firm. The number of media mentions for each firm was collected from the Infomedia database, which covers the media in Denmark. The number of entries was based on a five-year period. Many of the measures used in this analysis are prone to some measurement error as the name of the corporation may not be widely known or may be used differently; for instance, the large conglomerate, Scandinavian Holding, owns several prominent companies but Scandinavian Holding is rarely mentioned.

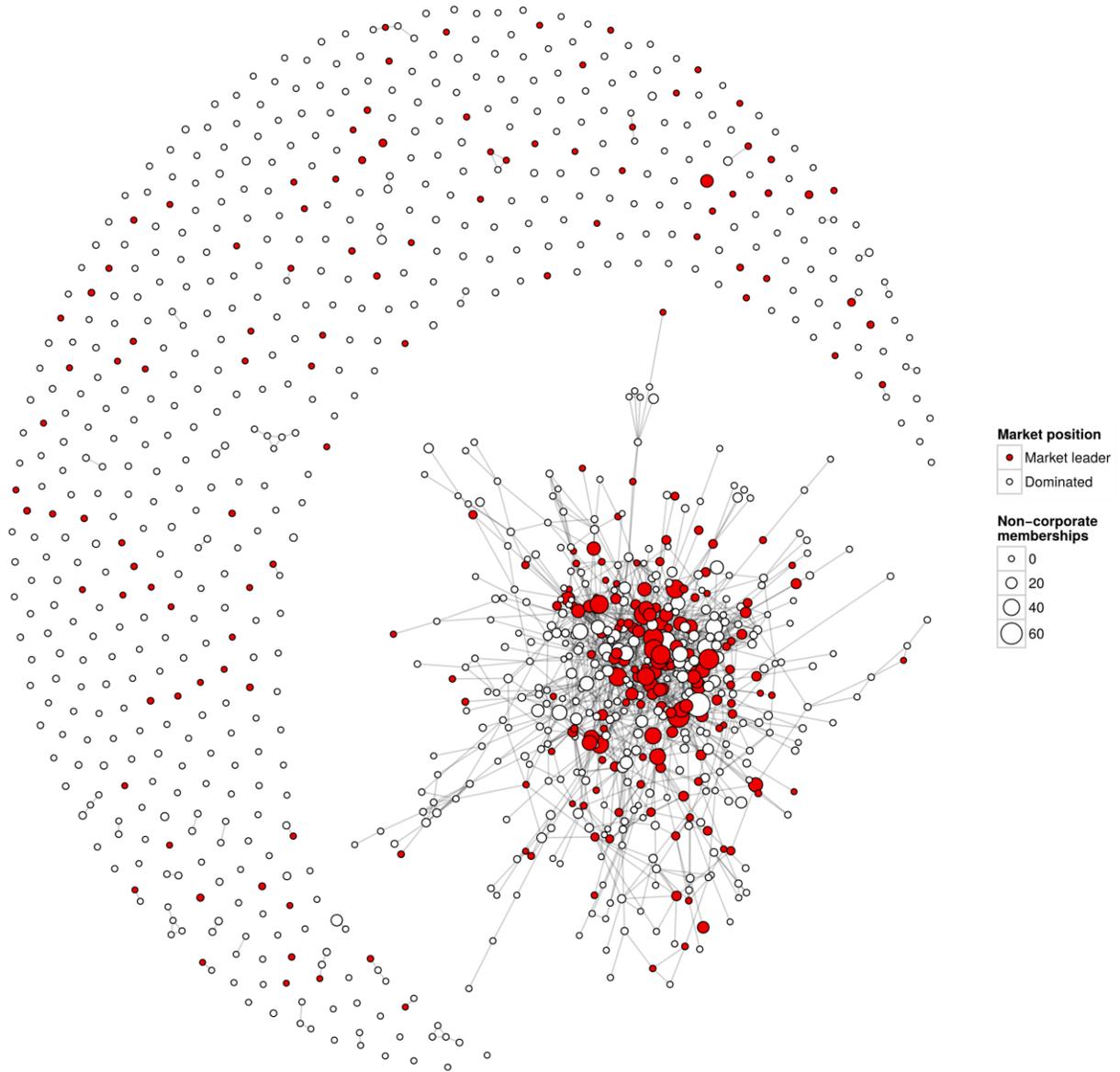
Analysis: Integration in sectorial networks

The following analysis is presented in four steps. The first step presents a descriptive analysis of the network of corporate interlocks in Denmark, in order to understand the structure of the corporate networks. The second step examines the integration between the corporate network and seven other important sectorial networks, to understand which are able to integrate with other parts of the field power and thus establish or strengthen an incumbent position. The third step investigates the correlations between turnover and inclusion in the sectorial networks and identifies the size of the class of corporations that are able to integrate. The fourth and final step presents a regression analysis of central mechanisms for inclusion in the sectorial network to understand the importance of economic and symbolic capital for inclusion in each sectorial network.

TABLE 2: NETWORK PROPERTIES

	Affiliations	Positions	Individuals	Largest Component component	Component diameter	Highest degree
Corporations	1,037	7,065	6,154	475	12	19
Business organisations	487	5,188	4,180	343	10	49
Interest groups	614	6,070	5,173	288	12	24
Science and education	853	8,269	6,611	625	12	69
Culture	490	3,830	3,198	305	10	51
State	457	5,828	4,461	392	11	82
Royal	91	8,343	5,311	63	3	45
Leadership	122	3,888	3,856	18	4	8
All non-corporate sectors	2,856	39,604	26,879	2,449	11	1,342

FIGURE 1: THE INNER CIRCLE OF THE CORPORATE WORLD



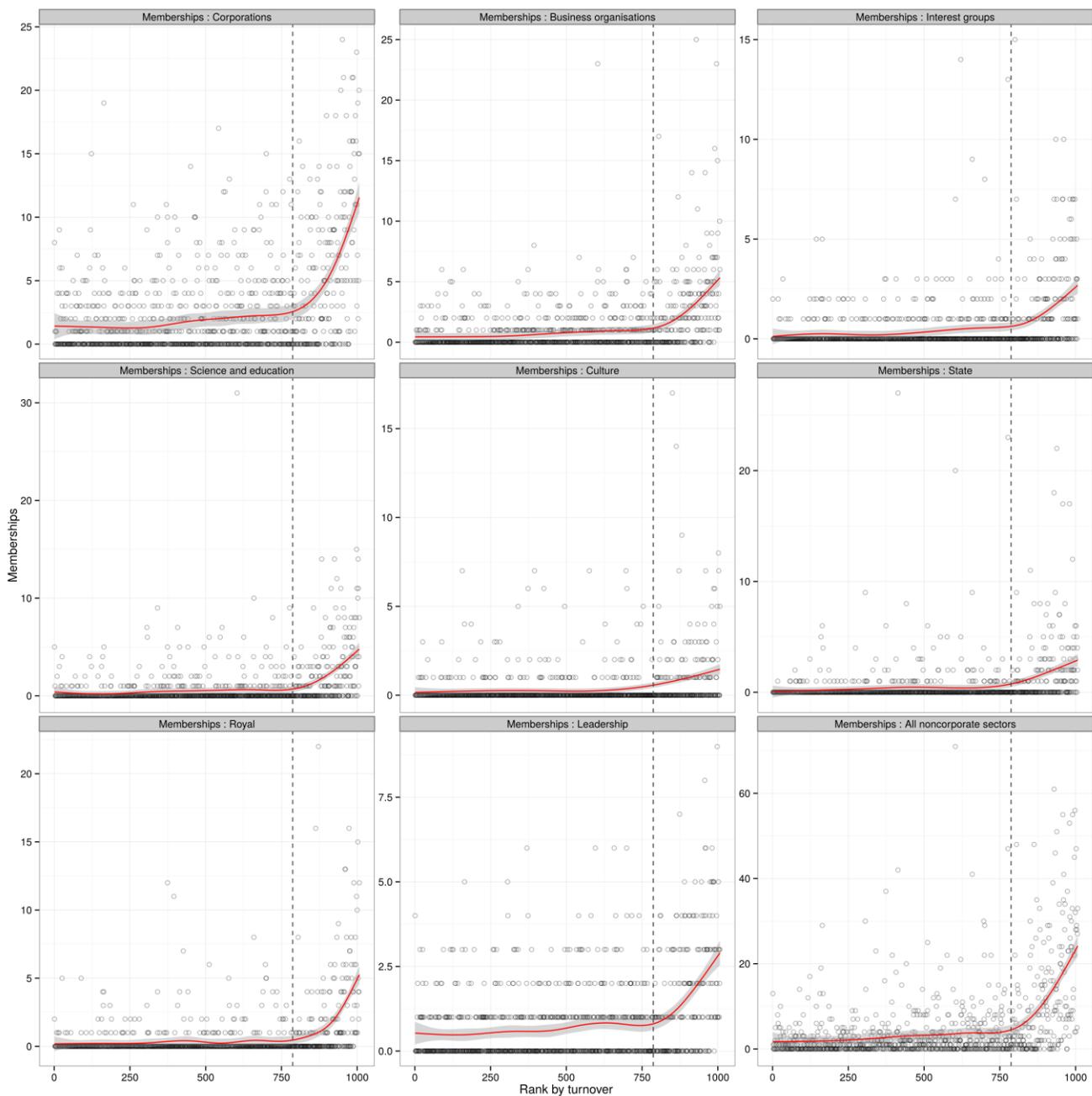
The size of each point (vertex), in Figure 1 equals the total number of non-corporate memberships of the corporation board members. The closer to the core, the more memberships the person holds. Among the isolates in the crescent-shaped cloud, there are only a few larger points. The central incumbents are very well-connected, both to each other and to other sectors. This are the corporations that form the organisational underpinnings of Useem's inner circle (Useem and McCormack 1981).

The largest component of the corporate network integrates approximately half (475) of all corporations. This finding is consistent with Sinani et al. (2008). Parts of the network are fairly unconnected, as the diameter is 12 degrees, which in network terms is a very long distance (Grannis 2010). The other sectorial networks in Table 2 are fairly similar in structure, but the relative size of the largest component is often larger than in the corporate network. This tells us that the corporate network is fairly exclusive in character. Being a board member of a top corporation is a larger investment for both firm and director than most other affiliations. But even if the largest distances in the corporate network are large, there is nonetheless a core of very well-connected corporations. The most connected corporation, the large financial co-op, Nykredit, has ties to 19 other corporations and 202 corporations have a diameter of more than 5 degrees. This tells us that inside the largest component we find a denser core, within which are predominantly corporations that are leaders within their markets, as can be seen in Figure 1.

The inner circle of the corporate world

If we look at the individuals who make up the corporate network we find that it is connected by 514 individuals with more than one directorship. This is the group of individuals who fit the methodological definition, if not the theoretical definition, of Michael Useem's inner circle, where inner circle affinity is defined as the directors with two or more directorships (Useem 1984:63). Of these, 121 are CEOs and 209 are chairmen in a top corporation. If we remove all 3.628 directors who hold only ordinary memberships from the network, the largest component goes from a size of 475 corporations to a component with 420 corporations. Thus, by removing half of all directors, only 55 corporations are disconnected from the largest component, which tells us that the network is connected primarily by the extraordinary board members, who are at the heart of corporate governance. The network is not influenced by lawyers sitting on the boards of shell companies. These lawyers are usually found in much smaller firms. This underlines the importance and selectivity of corporate connections. We also find that the network is dependent on 'strong connectors', directors with three or more memberships. But strong connectors have a tendency to also be chairmen or CEOs in big business and they therefore make the ties strong in another sense.

FIGURE 2: TURNOVER RANK AND SECTORIAL MEMBERSHIPS



We turn now to the characteristics of the corporation and how they correlate with sector memberships. In Figure 2, we see the correlations between the number of memberships within each sector and the rank of the corporation's turnover. The rank value reduces the differences in turnover to their purely relational character and ignores the actual differences in turnover. The correlations in Figure 2 have a very similar structure across the sectoral networks. There is a fairly flat line of equal integration in other networks until around the top 250. From this point on we see a clear rise in the number of memberships. In other words,

there is a local correlation between turnover and memberships. It is very interesting that the point where the correlation kicks in is almost identical across sectors, which indicates a discrete class-like structure. In the eyes of the other sectors there may only be the ‘top 250’ and ‘the rest’. It is very important to note that these correlations underestimate how much easier it is for a top 250 corporation to get a membership than it is for a smaller corporation. If a director is a member of both a small and a large corporation and he is invited onto a state commission because his network profile spans both large and small corporations, he adds memberships to both the small and the large corporation. In this way it may not be the particular attributes of the small corporation, but those of the large corporation, that gets them the state connection. The high level of institutionalisation of the Danish economy is seen by the fact that, on average, corporations are tied to more than one business organisation through their board members. Furthermore, the negotiated nature of the Danish economy is evidenced by the fact that the average number of ties to state institutions or science and education networks is between 0.7 and 0.9.

If a corporation is among those with the highest turnover within their business sector they are deemed to be incumbents, at least within the Danish economy. So the top 20% of corporations within, for example, banking or fashion, may vary considerably in size as a result of the size of their markets, but they hold similar positions within their sectors (or fields). This is also reflected in Table 3, where the 25 % of firms who are incumbent are above-average in all sectoral networks and have a mean number of memberships in all non-corporate sectors that is twice the average of all corporations. These findings underline the importance of the relative position of an organisation within its own field, in addition to its absolute size.

TABLE 3: MEAN NUMBER OF MEMBERSHIPS WITHIN SECTOR, PER CORPORATE BOARD

	Incumbent	Finance	Co-op	Global 500	All
Corporations	4.6	5.9	4.0	0.3	2.8
Business organisations	2.3	2.4	3.3	0.6	1.2
Interest groups	1.3	1.6	1.6	0.1	0.6
Science and education	1.9	2.2	2.0	0.3	0.9
Culture	0.9	0.9	0.6	0.1	0.5
State	1.4	2.7	1.5	0.1	0.7
Royal	1.7	1.3	1.3	0.1	0.7
Leadership	1.5	1.5	1.2	0.3	0.9
All non-corporate sectors	10.4	12.0	10.9	1.5	5.1

Although incumbents have a clear networking advantage, corporations that are tied to social movements (e.g. the co-ops) and those positioned prominently within the economy (e.g. in the financial sector) have some of the same advantages. The Global 500 corporations are not tied into the institutional structure that governs the Danish economy. They are peripheral in all networks, with a mean number of memberships well below average in all sectors. Although they may be important players in the Danish economy, their leadership is not embedded in the Danish economic field. Global 500 subsidiaries are often led by a Danish CEO but have a foreign-controlled board, or they may have a small and low-profile board. This reflects reduced decisional power in the Danish subsidiary, as most of the influence is at the global level. This may also be a barrier for inclusion in other sectoral networks, as the leaders of the Danish subsidiary cannot represent the corporation fully.

This barrier is amplified when considering that the majority of directors with multiple directorships are either chairmen or CEOs. Ties between corporations and other institutions occur mostly at the top of the organisation, and that level excludes foreign subsidiaries.

In clear contrast to the Global 500, the financial corporations and the co-ops are much better integrated and have considerably more memberships than the average corporation. The financial corporations are particularly well-connected to the state networks. This could be explained by the fact that pension funds and the largest investment funds in Denmark are owned or controlled by unions and the employers' associations. The two largest pension funds are the state-owned ATP and LD. Their boards are dominated by union and state officials, and employers' associations. Union leaders and the leaders of the employers' associations are strongly positioned across all sectors and that gives the financial institutions some of their prominence. But the largest banks are also very well-connected, not just to the rest of the corporate sector but also to politics and science. The co-ops are particularly well-connected to the business associations and interest groups, which represents the close ties between the co-op-controlled corporations and the much broader co-op movement.

Symbolic components of sectorial integrations

The descriptive analysis presented above provided insights into the correlations between turnover and inclusion in networks across the different sectors. It also showed the relative centrality of incumbent firms, co-ops and finance. Turnover has been used as the main measurement of size, but this measure does not capture the symbolic component of the dominance of the incumbent firms. The following regression

analysis will look into the particular role played by two measures of symbolic resources in the general public: (a) the total number of books written about a corporation; and (b) TV and radio presence. These measures are controlled for the influence of the financial size and other characteristics of the corporation.

When looking at the results of the regression analysis in Table 4, the first thing to notice is that turnover, one of the most common measures of corporation size, has no significant explanatory power over inclusion in the sectorial networks. This does not mean that turnover is unimportant, but that it can in some degree be decomposed into these other variables. The next thing that should be noticed is the consistent importance of the symbolic forms of capital: books, and radio and TV-presence. These two forms of capital have strong effects across all sectorial networks, even within business organisations and corporate networks. This shows that even if the indicators of symbolic forms of capital are very strongly correlated to turnover, equity and employees, there is an important and independent symbolic component to network inclusion across all sectors. In the network of corporations, the estimates for equity, number of employees, and radio and TV presence are all fairly equal. The relative centrality of co-ops, incumbents, and finance shown in Table 3 is still present in Table 4. The same is true for the Global 500 corporations, which have fewer memberships across most sectorial networks.

The two types of capital influence the number of memberships across the different sectors differently. The cultural, royal and state sectors have preference for ties with corporations with a high volume of books written about them. Which means that prominent corporations with a long history in Danish society are more likely to gain memberships within these fields. Some of these prominent firms (e.g. Mærsk, Scandinavian Tobacco, Novo Nordisk, Rockwool and Carlsberg) are owned by old families controlling charity foundations that support cultural institutions and artists. The Queen and the royal court also appear to have a preference for the corporations rich in symbolic capital, with only small effects from equity. The royal court is also connected to the old dynasties. Several of the dynasties have members who have received decorations, titles and positions from the royal family.

TABLE 4: REGRESSION RESULTS

	Range	Corporations	Business organisations	Interest groups	Science and education	Culture	State	Royal	Leadership	All non-corporate sectors
Mean number of memberships		2.8	1.2	0.6	0.9	0.5	0.7	0.7	0.9	5.1
Max. number of memberships		24	25	15	31	17	27	22	9	71
Turnover, ranked	[1:1007]									
Employees, ranked	[1:987]	0.0026 ***	0.0009 **		0.0009 **	0.0004 *			0.0009 ***	0.0035 **
Equity, ranked	[1:1007]	0.0019 ***	0.0008 *	0.0006 **	0.0009 **		0.0007 *	0.0008 **	0.0006 ***	0.0047 ***
Incumbent	[0:1]	0.9525 **	0.5543 *	0.3245 *				0.5956 **		2.3704 **
Finance	[0:1]	2.3382 ***	1.5497 ***	0.9259 ***	1.0359 ***		2.3255 ***			6.3668 ***
Co-op	[0:1]		2.2072 ***	0.6420 **	0.8366 *					3.5109 **
Global 500	[0:1]	-1.8642 ***		-0.4421 **	-0.5423 *	-0.3819 *		-0.6794 **	-0.4706 **	-3.0986 **
Books	[0:262]	0.0305 ***		0.0230 ***	0.0345 ***	0.0385 ***	0.0316 ***	0.0359 ***	0.0160 ***	0.1636 ***
Radio and TV	[0:983]	0.0030 ***	0.0031 ***	0.0011 **	0.0029 ***		0.0018 **	0.0018 ***	0.0007 *	0.0111 ***
R squared		0.29	0.25	0.25	0.25	0.24	0.20	0.23	0.24	0.37

*** = 0.001, ** = 0.01, * = 0.05

The state has a profile very like the royal family, which might not be surprising as the guest lists of many royal events are written in collaboration between relevant ministries and the royal court. But unlike the state, the royal family has a specific preference for incumbents. What is interesting is that co-op ownership does not have an effect in these three sectors. This indicates that strong ties to the co-op movement, and thereby the unions and the farmers movement, are not important by themselves, although it may also indicate that board members from co-ops are more likely to be integrated more closely with their respective movements than with the haute bourgeoisie and the state. The sectors where pure economic capital is most prominent are the corporate networks, business organisations, science and education and the leadership networks.

Conclusion

A connected corporation is an influential firm. The influential corporations form the environment in which they compete with their competitors. They are able to stabilise the market in a state that benefits them. The corporate network in Denmark is fairly exclusive, with only half of the corporations taking part in the single large component connecting the large Danish businesses. The exclusive character of the network of interlocking directorates is underlined by that fact that a substantial part of the network is connected by CEOs and chairmen. The ordinary members play a minor role in the integration of the network. But even if this component is exclusive and ties are globally rare, there is a very connected core. In this core the incumbent corporations are strongly connected with each other and also to other sectors. This indicates that, as Neil Fligstein proposes, it is primarily the best-organised incumbent firms that are able to wield influence. The incumbent corporations are of course also the largest in terms of turnover, therefore there are also clear correlations between the number of memberships in the different sectorial networks and turnover. This correlation is not a global one, however; it is only at the top of the distribution. A clear bend in the correlations around the top 250 corporations is found. It could be argued that there are two classes of corporations at the top of the 250 largest corporations, and then there are the rest.

Although in economic terms corporate size is of substantial importance to corporate integration, it is only a part of the picture. Symbolic forms of capital — the recognition that a corporation is honourable, prestigious and prominent — have an independent impact on the degree to which a corporation is able to create cross-sectorial ties. The effect of indicators of symbolic capital varies across the different networks. The state, the royal court and culture connect primarily with corporations strong in symbolic capital. However, the influence of symbolic capital is a substantial factor towards the corporation's inclusion in all

sectorial networks.

But it is not only the position of each corporation within the economic field or the market that influences the degree of integration. If a corporation is positioned or owned by owners with a particular affinity to the Danish elite, it will tend to be better integrated. Co-ops and financial corporations are vastly better integrated than other corporations. On the other hand, the subsidiaries of Global 500 corporations may be strong in both economic and symbolic forms of capital, but they are less central than could be expected because of their weaker ties to the Danish elites.

Recent studies have found declines in the cohesion of nationally embedded corporate networks (Bühlmann, David, and Mach 2012; Heemskerk 2007; Mizruchi 2013). The decline in nationally embedded networks is in the Netherlands paralleled by a decline in the connections between the corporate sector and the state (Heemskerk et al. 2012). The decline in the prominence of the corporate network may be a result of an emerging transnational or European corporate network (Carroll and Fennema 2002; Carroll, Fennema, and Heemskerk 2010; Heemskerk 2013). Directors and corporations are in some countries increasingly integrated into regional or global networks, because the business scan they can achieve from these networks is more pertinent to their situation than those from within their nation-state. It may also be argued, however, that corporate cohesion is the result of external pressures from state and labour (Mizruchi 2013; Moran 2008; Useem 1982) and the declining cohesion reflects the waning influence of competing elites. As this study shows, internationalisation in the corporate networks in Denmark is not prominent. Few of the corporations have foreign ownership and foreign board members, but those that have foreign owners are more often isolates, and this may be a reflection of the destabilising effect foreign take-overs on the network. The Danish business community may be guarded from foreign influence by the large extent of protective forms of ownership in Denmark. But it may also be the case that only the largest of Danish corporations are able to play a successful part in the emerging global field of power, and therefore most companies stay within the nation-state.

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5. The Danish elite network

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Abstract

This article presents the extensive Danish elite network. Collected during 2012 and 2013, the data comprises 62,841 positions within 5332 affiliations, and connects 37,750 individuals. The affiliations are between the largest Danish corporations, the most important state institutions, organisations recognised politically by the state and other potentially powerful or integrative networks such as social clubs or royal events. Data were gathered through an inclusion principle, adding all potentially interesting affiliations. Procedures of name-matching and quality control are presented. Finally, the data are introduced: made available through a package for R, which enables the creation of subnetworks and weights.

Introduction

Since C. W. Mills wrote his seminal work, *The Power Elite*, elite research has struggled to defining elites empirically. In 1956, Mills offered a compelling definition of the power elite as: ‘... those political, economic and military circles which as an intricate set of overlapping cliques share decisions having at least national consequences’ (Mills 1956:18). Mills himself had to rely on the positional method (see Knoke, 1993) and could not map the overlapping circles directly. Later, social network analysis was used to identify power elite-like structures as social circles within policy discussion networks (Alba & Moore, 1978; Bovasso, 1992; Higley, Hoffmann-Lange, Kadushin, & Moore, 1991), but as topics change, these networks also change and may not give a clear picture of more lasting elite relations. Furthermore, policy networks require the cooperation of elite individuals, which is increasingly difficult to get.

By collecting a two-mode network of all nationally integrating publicly available and official affiliations in the small nation-state of Denmark, ‘The Danish Elite Network’ dataset permits the identification of the central individuals, affiliations and cross-cutting social circles that compose the power elite. (See Ellersgaard and Larsen 2014; 2015). The data can easily be split into parts according to sectors such as politics, business, organisations and state, allowing more detailed studies of sub-elites, but still with reference to the total structure. Because Denmark is a small society with strong traditions of transparency in decision-

making processes and widespread use of websites for both public and private organisations, it was possible to attempt a complete registration of all official elite affiliations. Collected during 2012 and 2013, the data contain 62,841 positions in 5,332 affiliations and connect 37,750 individuals. The attempt was made to include all nationally relevant official positions, such as company boards, committees, foundations, advisory boards. Data on the corporate and foundation boards are drawn from public registers. All other data were collected manually from affiliation websites.

In the following sections we present the data collection process with its strengths and weaknesses, we introduce the available data files and, finally, we present a table with the data details.

Data: The extensive elite network

The data were collected in four fairly discrete phases:

1. The generation of lists of affiliations
2. Affiliation collection
3. Name-matching and quality control
4. Tagging

The generation of lists of affiliations

First, we created large initial lists of organisations and groups. The included groups are not affiliations themselves but lists of names of organisations and groups, their type, their addresses and preferably their website. These initial lists provided the basis for a small snowball procedure for each organisation. Using self-reported organisational information, such as organisational diagrams, we identified all the relevant committees, boards, sub-committees, board of representatives, and other groups. The names of all members were collected, along with their affiliation, role (e.g. chairman, director), a long string with their description (if available) and the link to the website describing of the affiliation. The initial lists of organisations and groups were constructed according to the inclusion principle, which dictated that all possibly relevant organisations were included in the dataset. This was ensured by constructing the lists from exhaustive official databases.

In Table 1, the organisations in the initial lists are grouped according to their source. The excluded

organisations are those that were removed from the data because they did not form ties between organisations. The final number of affiliations from each source is the number remaining after removing those that formed no ties between organisations and adding the snowball samples. The list of state organisations was drawn from a large public database of governmental and non-governmental entities, the –Danish Public Administration Database (FOA, www.foa.dk). The FOA contains a hierarchical database placing each of the ‘offices’ in the Danish state organised in a nested structure, with names of leading personnel, addresses and sub-offices. All offices working at the regional level or above were made into an initial list. This excludes ‘offices’ working at the local level, such as public schools, individual churches, police and fire departments, but includes high schools and large hospitals. The state offices are often governed only by the office one step higher in the structure and as a result, many do not form boards or committees. This seems to be reserved for more autonomous entities higher in the structure.

TABLE 1: AFFILIATION NETWORKS INCLUDED IN THE DATA

	From original sources	Excluded*	Added in snowball sample†	Final number of affiliation networks	No. of relations
State ¹	2,328	1,780	327	875	10,230
Parliament ¹	153	101	31	83	970
NGO ¹	749	144	922	1,527	16,436
Corporations ²	1,136	34	40	1,142	7,476
Foundations ²	1,380	18	83	1,445	8,181
VL Networks ³	117	3	0	114	3,845
Commissions ⁴	116	44	0	72	1,121
Events ⁵	74	0	0	74	14,582
Total	6,053	2,124	1,403	5,332	62,841

¹ Source: Danish Public Administration Database (www.foa.dk)

² Source: The list of largest corporations according to turnover, and the list of all foundations in the Danish Central Business Register (obtained through www.biq.dk)

³ Source: Homepage of VL networks (www.vl.dk)

⁴ Source: Registration of political commissions from 2005-2011, made by Danish weekly newsletter *A4*.

⁵ Sources: Webpage of Danish Royal Family (www.kongehuset.dk) and private archive of journalist.

*Affiliation networks were excluded if: no board of extra-organisational members existed, no information on the board was available (either online or through personal contact), the board was included in other sources (i.e. data was not duplicated), or the board entirely overlapped with another board within the same organisation.

† Includes both sub-committees within the organisations on the original list and the 142 networks obtained by snowballing the affiliations of prominent agents.

The list of commissions was produced by the weekly newspaper *A4*. The list contains all commissions from 2005 until 2011, and was supplemented by the authors to 2013.

The list of parliamentary committees was taken from the official parliamentary website, along with other institutions tied to the parliament.

Affiliations were snowballed from the top 1,000 corporations according to turnover and their independent subsidiaries. Structurally important corporations such as media and financial institutions were then added to the list. Both corporations and a complete list of boards of foundation originated from The Central Business Register (CVR). Advisory boards and sub-committees of the major foundations² were added to the list of foundation boards.

The list of NGOs was drawn from the FOA database and includes all organisations with the right, given by the state, to be consulted on legislation. All unions, employers organisations, national sports associations, environmental groups, animal rights groups and many more are included in this list. To the NGO list were added various organisations that did not fit with other lists, such as publicly known elite networks. The largest of these, the VL groups, is split into a separate list. The list of events includes all publicly listed balls and official dinners, and royal hunting parties held by the royal family from 2009 to 2013. The collected events differ considerably in size from the rest of the affiliations. The state affiliations have on average 11 members, whereas the events have around 200. Any analysis that uses these events along with the other affiliations should consider using a multiplex network or weighting the data. Some of the events (e.g. royal hunting parties) are recurring and can therefore be merged into a single set of events.

The inclusion principle: Connecting organisations at a national level

Three rules of inclusion guided the many small snowball samples:

1. All affiliations should be able to connect individuals across organisations. This excludes affiliations that are reserved to employees of an organisation or that are purely internal. When looking at nested organisations (e.g. a holding company and its subsidiaries), this distinction can be difficult to maintain.
2. All affiliations must meet physically at least once a year and therefore create face-to-face interaction

¹ Independent subsidiaries have board members who are not employed by or on the board of the parent corporation and have a high enough turnover to be part of top 1,000 corporations.

² Major foundations were identified by the Danish consultancy, Kraft & Partners.

between their members³.

3. All affiliations must operate at a regional or national level. They operate at a regional or national level if they integrate individuals at a regional or national level, thereby excluding local affiliations such as environmental groups working for the preservation of a particular forest or a local shelter for the homeless.

All three rules can be ambiguous in their application, but this is resolved by the general inclusion principle: if two data collectors disagree as to whether an affiliation should be included in the data, it is included.

Name-matching and quality control

Systematic and algorithm-guided quality control is paramount when working with this type of data. The affiliation network was checked for complete or almost complete overlap between groups. Affiliations where at least one affiliation has an overlap with another affiliation had their uniqueness tested. Some of these affiliations are nested into each other, like a general assembly and a board of directors.

All names were matched and duplicate names were coded as the same person only with confirmation from several sources. These sources would often be the collected descriptions from the affiliation websites, but could also be addresses and official registers. But this procedure slightly underestimates the ties, erring on the side of caution. The name-matching process was performed by sorting the list according to first name, last name and full name. In some instances an individual may not use the same name in all instances; most commonly, a middle name was not used. The sorting procedure captures this practice but is very vulnerable to people changing their first name, sometimes using a middle name as a first name. If this practice was suspected, a search for possible alternative first names was made; however, it is impossible to achieve perfect-name-matching quality and the data therefore underestimates the number of connections.

Tagging: Ordering data

All affiliations in the data were tagged with up to seven tags. The tags are thematic: culture, music, science, education, social politics, and foreign relations. Tagging is different from categorising, because tags are non-exclusive and the number of tags for each affiliation varies. The tags were based on affiliation

³ Some groups, like the group of 49 lay judges in the labour courts, only meet a few individuals at a time, but considering the number of cases each year, all individuals are likely to meet.

descriptions from the web-pages. All tags were controlled for consistency by two coders and very specific tags were later merged or removed. The network can be split into sector by combining the relevant tags into subjects and then extracting all affiliations with a relevant tag. The affiliations related to the Danish state can, for instance, be extracted with this collection of tags: *'State administration'*, *'Ministry'*, *'State corporation'*, *'State'*, *'Military'*, *'Public leaders'* and *'Commission'*.

Data files and formats

Data is provided in the Danish_Elite_2013_Relations.csv file separated with “|” and encoded in UTF-8. It is organised as a case-affiliation edge list with a few attributes attached to each relation.

The relations matrix has the following variables:

NAME	The matched name of the individual. All names are unique.
AFFILIATION	The name of the affiliation with its function in parenthesis.
ROLE	The role of the individual within the affiliation. This information is not always included for the top 1,000 corporations.
GENDER	The gender of the individual. The gender is determined by the first name.
DESCRIPTION	The description of the individual taken from the affiliation website in relation to this position.
SOURCE	The source of each relation and affiliation.
BIQ_LINK	If available it is the link to the BIQ.dk database.
CVR	The CVR number for each corporation and foundation.
TAG1-7	More than 350 thematic tags for each affiliation.

The main datasets can be broken down into separate datasets with the use of the ‘source’ variable. This allows a partial analysis of, for instance, the corporate interlocks of Denmark or the Danish parliament.

The dataset is also made available via the R package `soc.elite`, currently available on Github: github.com/antongrau/soc.elite. The package includes functions for sub-setting by tags, descriptive functions, and functions for cleaning, coding and plotting. Furthermore, the package includes analytical functions that replicate the analysis made in Ellersgaard and Larsen (2014). By distributing the data along with relevant functions, the reproducibility of results based on ‘The Danish Elite Network’ is greatly enhanced.

In the package there are datasets that can be merged with ‘The Danish Elite Network’, such as biographical data on a core of 423 individuals. A dataset with biographical data on a core of 171 core business leaders and a dataset with data on size, turnover, number of employees and the like, on the top 1,042 corporations. The package also serves as a valuable tool in courses on social network analysis or elite sociology. Researchers who analyse the data available in `soc.elite` are encouraged to send their code to the package maintainer and it will be published in the package along with proper citations.

Data details

Response rate	N/A
Non-respondent bias	N/A
Theoretical grouping	No questionnaire was used
Publications using these data	Stahl and Henriksen (2014) Ellersgaard and Larsen (2013, 2014, 2015)
Data context	Database of a national elite
Respondents	
Longitudinal	No
Temporality	Most positions last several years, although individual careers end within days. Some data points are separated by up to 2 years, for events up to 4 years and commissions up to 8 years
Analytical or pedagogical utility	The data allow for analysis of inter- or cross-sectorial ties. As they are divided into many sectors, students can choose sectors that interest them.
Known issues	Underestimates the amount of connections due to the name-matching procedure.

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6. Identifying power elites – a social network analytic approach

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Abstract

Specifying network boundaries and structure is of vital importance in the study of the social organisation of the most powerful: the power elite. However, traditional methods fail to offer clear criteria on either size or composition of the elite, and rely on numerous ad hoc decisions.

The authors constructed a large database comprising 5,332 affiliation networks with 62,841 positions shared by 37,750 individuals. Drawing on this, the article proposes a methodological framework that is both inductive, reproducible and suitable for comparative research.

A three-step procedure was used to identify the power elite. First, a comprehensive dataset was assembled of the affiliation networks of all potentially powerful sectors. These were supplemented by snowballing further affiliations in the data collection process and lists of participants from key social events.

Second, these heterogeneous affiliation networks were subjected to a weighting procedure to account for the potential level of social integration. This was based on the number of participants in the affiliation network, with a baseline of 14 or fewer participants.

Finally, the most cohesive subgroup of the network, a core power elite network of 423 individuals, was identified using a modified k-core approach focusing on social proximity rather than direct ties. From analysis of the composition of this core, we discuss the potential and stability of using this methodology for comparative analysis of power.

Introduction: Who are the elite?

Labelling a political opponent 'élite' is a powerful rhetoric. In the 2008 US presidential election, Barack Obama was shown to be an elitist for discussing the price of arugula in the Iowa primaries, while the Democrat campaign responded by pointing to the amazing wealth of John McCain's family. Both performed the anti-elite discourse of Keyser Sütze elites (Du Gay 2008), trying to convince others that they themselves were not elites. But who are the elite? The political struggle for who forms part of the elite is a central, public debate, and yet, the social sciences have failed to deliver a credible methodological conception of this group. Without this framework, discussions about the men of power remain a playground for conspiracy theorists and demagogues. By narrowing the field of enquiry to *power* elite and by applying network analysis, we propose and apply a research design that is capable of identifying the core of the power elite in a vast array of key organisations in Denmark, including large corporations, government, state and public institutions, non-government organisations (NGOs), foundations, and social clubs and events.

The notion of elites is one of the most misused categories in the sociological vocabulary, referring to both powerful and distinguished groups (Scott 2003). The power elite, as described by C. Wright Mills (1956), comprises the key decision makers in society. In the US of the 1950 and 1960s, Mills found the power elite to comprise the management of large corporations, the military chiefs and the political directorate. However, the image of a society dominated from above was challenged both theoretically and empirically by pluralists (e.g. Dahl 1958), who preferred a vision of societal power as a stalemate between leadership groups representing a broad spectrum of interests. Because of the different methodological prescriptions of these positions, the primary battleground for this debate turned to theoretical definitions of power (Bachrach and Baratz 1962; Dahl 1957; Lukes 1974). Proponents of the elitist or ruling class perspective invigorated the empirical debate through the methodology of power structure research (Domhoff 1978; Freitag 1975; Mintz 1975). Scholars attempted to show the existence of a ruling class by documenting strong and multifaceted ties between politics and business (Burris 2005; Moran 2006), or the social club affiliations tying the elite together (Bond 2012; Domhoff 1974, 1975). However, the question of the composition of this ruling class or power elite remained theoretical. This study contributes to the discussion by using empirical strategies of power structure research to form a methodological framework capable of identifying the power elite across various countries.

The empirical challenge when identifying this core group, the boundary specification problem (Laumann, Marsden, and Prensky 1983), is a key concern within relational sociology (cf. Emirbayer

1997). What should be regarded as key institutional hierarchies? Traditionally, scholars have relied upon organisational position, reputation among other powerful individuals or decision-making processes (Hoffmann-Lange 2006; Scott 1991). However, all of these approaches rely on the researcher's theoretical presumptions about the size and the composition of the power elite. Does the power elite comprise a small circle of, say, 300 people or a larger group of up to 7,500 individuals? Is the size of the elite in some way correlated with the size of the country, as seems to be the assumption of most elite studies (Burton and Higley 2001:189)? At what stage are all relevant members included? Which sectors should be included and to what extent? These issues are of course most prevalent in the positional approach. However, the selection of decision-making processes or assessors of reputation is also implicitly tied to these questions. Furthermore, even after these theoretical assumptions about the size of the elite and its 'sectors' have been made, more ad hoc decisions await. What should be the inclusion criteria for CEOs? If corporation turnover, then commercial industries are over-sampled. And worse, how to identify key artists? The theoretical stalemate between pluralists and elitists carries over to technical decisions about who to include in the elite population. There is a lack of criteria for defining the size and composition of the power elite in an exhaustive, reproducible way while limiting more or less ad hoc decisions. In this context, ad hoc decisions are informed theoretically or empirically, but by theories that are not sufficiently specific. Although numerous brilliant studies on particular elites have been based on sound, theoretically informed ad hoc criteria, ad hoc decisions remain a barrier to comparative studies and reproducibility.

In the methodological design proposed and applied in this paper, we present a two-step procedure for bypassing the boundary specification problem. First, we applied an *inclusion principle* for the selection of affiliation network data. If a registered gathering of some sort (e.g. a corporation board, a social club or a royal ball) within the limits of our sociological imagination can be conceived as potentially either powerful in its own right or a vehicle for social integration between elite individuals, it was included in what we defined as the entire power network. However, because all networks were included as part of a deliberate search within all power spheres of Danish society, this vast network of 5,332 organisations and 62,841 positions is not quite 'big data', but 'data of the middle range'. Secondly, we used the structure of this network to *identify the cohesive core* of this network, the power elite. Because the affiliations included in the network were quite heterogeneous, we constructed a weighting system by identifying the level of social cohesion created by different ties. Inspired by Doreian and Woodard (1994), we identified the boundaries of the power elite by applying a k-core collapse sequence, although we also included ties the core form to their extended network, subject to the above-mentioned weight. By replacing ad hoc criteria of power elite positions with an inclusion principle and offering a socio-

metric criterion of power elite membership through network analysis of these inclusive data, we devised a reproducible method for identifying power elite size and composition. By applying this approach we identified a power elite of 423 individuals in Denmark.

Background: Identifying elites

Identification of power elites or leadership groups, whether local or national, has traditionally followed one of four distinct strategies: the positional, the decisional, the reputational and the relational (Knoke 1993). Much of the debate surrounding the superiority of any one of these methods is rooted in the theoretical stalemate between elitist and pluralist positions (Mintz et al. 1976). However, as Knoke (1993:29) notes, ‘which actors belong to a national political domain cannot be specified a priori. They must ultimately be determined empirically’. As we shall see, despite their many proven strengths, none of these methods delivers criteria for exhaustively identifying the size and composition of a core group while at the same time avoiding the ad hoc decisions that fuel theoretical division and fail to advance theoretical understanding.

Of the four strategies outlined, the positional method is still the most widely used (Hoffmann-Lange 2006), hence we turn first to the issues with this approach. The main problem within the positional method is that it offers no clear criteria for sector-inclusion. Although religious leaders are undoubtedly important in Iran, the same criterion does not necessarily apply in secular societies. Likewise, the importance of unions is clearly dependent on varieties of capitalism (Hall and Soskice 2001). Whether based on Marxist or pluralist perspectives, inclusion is based on the researcher’s presumption of who forms part of the ruling classes and its ideological apparatus, or who represents legitimate interests. The most important question, of who rules, is answered in the methodological design, not by the data. Secondly, the positional approach offers no empirical criteria for sampling each of these sectors. Should the ratio of artists from the cultural elite to CEOs of the economic elite be 1:5, and is this independent of population size and country? Often it is assumed that included members share roughly the same relative power, but without empirical criteria the size of each sector included, and thus the size of the power elite, is inaccurate at best. Thirdly; inclusion criteria within each sector are again based on preconceptions rather than reflexive criteria. Even among business leaders, where the size of each firm can be assessed by, for example, turnover, number of employees and assets (as done convincingly by Maclean, Harvey, and Press 2006), peculiar local arrangements of owners and management force researchers either to make ad hoc decisions or, worse, stick to rigid criteria (e.g. excluding or including management of all subsidiary firms from the analysis), despite the relative autonomy of the particular

subsidiary. This is especially the case when making comparisons across time, as shown in the recent debate between Carroll and Fennema (2002, 2004) versus Kentor and Jang (2004, 2006) about how to select top global corporations across decades. Even so, compared to politics or government, let alone NGOs or the cultural field, the economic elite has by far the most obvious criteria, economic strength and relatively clear hierarchies. Clearly, positional methods render no clear empirical criteria for either size or composition of the elite, and in addition require several ad hoc decisions based on theoretical assumptions that are not easy to replicate across different epochs or countries.

When identifying elites by decision-making criteria (see e.g. Polsby 1960), the problem of whom to include becomes which decision to focus upon. Although Mills was perhaps correctly criticised for looking at major historical decisions (Rovere 1968) when arguing for power elite dominance, this criticism can also be applied to Dahl's (1961) work on decision-making in New Haven. First, what is the criterion for inclusion of 'significant issues' (Bachrach and Baratz 1962)? Secondly, how does one rank the elite without very clear guidelines for preferences, relative importance and the expectations of chances of success for different groups (Domhoff 2007; Mintz et al. 1976)? Furthermore, as Domhoff's (1978) thorough and critical re-examination of Dahl's analysis of political processes shows, failure to include all institutions and actors in the entire process leading up to the decision can lead to severe flaws in the analysis. Finally, the power of a group to exclude issues from decision-taking, what Anthony Giddens (1972) refers to as decision-making, is not taken into account. If power is regarded as a relational entity of a process (cf. Emirbayer 1997), decisions are constantly made under the radar of the researcher, who is narrowing in on decisions taken. Identifying an elite group's ability to remove issues from the political agenda thus constitutes a serious problem for any decision-making criteria for investigating the position of various groups within the power structure.

The shortcomings of the positional approach affect the reputational approach as well. Originally developed by Hunter (1953), the reputational approach identifies the powerful group according to the level of power attributed to it by other key members of the community power structure. Ad hoc decisions occur in the selection of persons who evaluate the powerful. Although a number of perspectives can be secured by thorough sampling and snowballing, the informant, himself a key player, is at risk of increasing his or her own status. Furthermore, any missing responses from key agents can exclude important perspectives. In addition, the informants' preconceptions of power—and their inclination to hide or enhance their own privileges and importance—can lead to identification problems. In the identification of a core group rather than an analysis of power structure, these issues are most pressing. Pluralist critics such as Wolfinger (1960) emphasise the problems of ambiguity of

power definitions for both respondents and researcher, and ad hoc decisions on the inclusion of different powerful institutions. Ironically, the pluralist themselves faced the same issues when deciding organisational salience, in identifying key informants by key decisions.

The issues regarding identification of the size and composition of the power elite has been addressed by applying the relational approach using social network analysis. By combining the positional and reputational approaches, the relational approach draws on the Simmelian notion of social circles to find a central circle of policy makers within the elite (Kadushin 1968). The circle is identified by prominent members naming others as key policy discussion partners, thus allowing the inclusion of power brokers overlooked by the researcher. In this tradition, inclusion in the central circle of these power networks is viewed as an indicator of the power structure and membership of the elite social circle (Alba and Moore 1978; Higley et al. 1991; Moore 1979). Identifying social circles—informal groups without clear leadership (Kadushin 1968)—‘not only identifies collectivities with an important type of internal structure, but also leaves open the possibility that they do not exist, and thus that a network is fragmented’ (Moore 1979:680). Furthermore, the tendency for members of the core group to interact with each other rather than with their respective constituencies can be used as an indicator of social closure within the power elite (Bovasso 1992). Hence, the socio-metric approach can offer an empirical definition of the size and composition of one or more core groups, allowing identification of both pluralist and elitist power structures. Within this framework, elites are a social group tied through internal cohesion, where internal reputation plays a central role. This is similar to the inner circles of American and British business elites studied by Michael Useem (1984). However, when applied to national elite networks, as in the excellent study by Gwen Moore (1979) on data from the American Leadership Study, this method suffers from two challenges. First, it requires a very high response rate among the elite respondents to ensure the inclusion of all ties and to identify the social circles, because these are based on the extent to which cliques overlap, which is highly sensitive to missing data (Knoke 1993). Secondly; the respondents name policy discussion partners within the field in which they deem themselves most influential. This leads to a focus on the issues subject to decision-taking, whereas decision-making, through consensus within the elite social circles, is more likely to be overlooked. A bias towards the field of politics is probable.

The use of inclusion in power networks as a vantage point should not be discarded because of the problems of the relational approach. These networks offer insights into the balance of power of societal institutions. When defining the concept of the power elite, Mills (1956) specifies a group simultaneously holding command positions in top institutional hierarchies and forming part of

overlapping social circles between them (Denord, Lagneau-Ymonet, and Thine 2011). To make a tie with another power broker is also to recognise the legitimacy and value of the other's power resources, resources which are primarily based on the institutions and organisations of the individual (Scott 2008). As the possibility of exchanging power resources is key to holding an elite position (Khan 2012), the level of inclusion in these networks is a strong indicator of which institutional hierarchies other elite members hold in high regard. Individuals outside of these elite networks may wield other power resources (e.g. capability to mobilise the masses, attract media attention or amass economic capital), but have not yet been invited into—or have refused to take part in—the everyday maintenance of the social order. The network of the power elite is the source of stability, not change. Denmark, along with the other Scandinavian welfare states, has evidenced extraordinary social stability (Campbell and Hall 2006).

Methodology: Elite networks in data of the middle range

To avoid the shortcomings associated with the above-mentioned traditional elite identification strategies we devised a two-step procedure for elite identification, applying social network analysis to an affiliation network. The first step was a data collection strategy governed by an inclusion principle. The inclusion principle was used to move beyond ad hoc decisions on which sectors, and who within them, to include. The second step addressed the boundary specification problem by applying a k-core clustering algorithm to a weighted affiliation network. This procedure for identifying the size and composition of a distinct national core elite is reproducible and is based primarily on empirical findings rather than theoretical concepts.

The ad hoc decisions regarding which networks to include risk the pitfalls of the pluralist–elitist debate. Using the inclusion principle, instead of assessing whether a particular group is important or not, all potentially powerful networks are included. Instead of asking theoretically defined elite informants who they regard as peers, observational data, data on who they and everyone else include in formal networks, are used. If sources show that a list of individuals has met, this can be included in the analysis as social ties between these individuals. The objective is to describe the social cohesion created through these ties, rather than the strategic network positions available. Thus, this approach expands the design used in the classical studies of corporate interlocks (Allen 1974; Mizruchi 1996), transnational capitalist classes (Carroll 2003), and interlocks between business, government, policy planning groups and the non-profit sector (Domhoff 2013; Moore et al. 2002), by including not only data on corporate boards and a few selected other organisations, but data from a vast array of formalised or semi-formalised networks.

With the growing number of publicly available sources of corporate boards, think-tank affiliations, government bodies and so on, it is possible for empirical sociologists to embrace the challenges of big data by including as many affiliation networks as possible (with certain technical modifications to be described later)—offers a way to embrace the challenges of ‘big data’ to empirical sociologists (cf. Savage and Burrows 2007). As the main aim of this study was to identify cohesive groups, the inclusion principle was not used with lists of individuals that merely indicated some sort of common denominator without implying actual interaction (e.g. Twitter-followers, co-citations and other sources used in analysis of big data). Rather, it was used when there existed the potential for the face-to-face interaction that is so crucial for the creation of internal group solidarity (cf. Collins 2004); this enables a move from big data to data of the middle range. Other types of networks, such as informal contacts, friendships, family and kinship ties, may also create cohesion and serve as vessels for communication. Data collected through this inclusion principle offer little value in a strict analysis of advantageous network positions (see Burt 2004; Granovetter 1973; Vedres and Stark 2010) and primarily offers insight on the levels of social cohesion between individuals, thus following the tradition of G. William Domhoff (1974, 1975, 2013).

Data: The extensive elite network

The data collection process that generated the two-mode elite network can be thought of as four relatively discrete phases:

1. Generating lists of networks
2. Network collection
3. Name-matching
4. Quality control

The first of these phases was the generation of large initial lists of organisations or groups that form the main corpus of networks. These initial lists are not networks themselves, but lists of names of organisations and groups, their type, their addresses and preferably their website. These lists formed the basis for Phase 2, network collection. The network collection consisted of finding the self-reported organisational information on the organisation’s website, including all the relevant committees, boards, sub-committees, boards of representatives, and other groups. The names of the individuals, along with their affiliation, role (e.g. chairman, director), description and link to this affiliation were then added to the data. This amounted to a small snowball procedure for each organisation. During Phase 3, the name-matching process ensured that all instances of the same name referred to the same individual and

that each individual was represented in the data with only one name. This process was very time-consuming, as each of the tens of thousands of matches had to be validated, from the descriptions collected or individual investigation. In Phase 4, data quality was ensured by checking for duplicates, perfectly overlapping groups and matching errors.

Phase 1: Generating lists of networks

The initial lists of organisations and groups were constructed according to the inclusion principle, which dictates that all possibly relevant organisations are included in the dataset. This was ensured by constructing the lists from exhaustive official databases. Table 1 provides an overview of the total number of organisations considered, how many were excluded because they did not create forums for inter-organisational ties, and finally the new organisations that were included through the many small snowball procedures. The organisations were grouped according to their source. The parliament list comprised all political party sub-committees and other institutions tied to the parliament, taken from the official website. The state list was constructed from a large public database of government and non-government bodies and the FOA (The general public administration database. FOA is a database of the hierarchical structure of the state, and all its offices, with names, addresses and key employees). A list was created of all state offices working at the regional level, but excluding the local level. As a result, high schools were included, but not public schools. The state offices are often ordered strictly hierarchically, and as a result they do not form relatively independent boards or committees. The commissions list was drawn from a mapping of all commissions from 2001–2009 by the weekly newspaper A4, supplemented by our own research. The list of corporations included the top 1000 corporations according to turnover, as well as an extra sample of structurally important corporations, such as media and financial institutions. This approach resembles that of the positional method. The list of foundations was a complete list of all foundations and their boards, taken from the official Danish Corporate Register. These boards were supplemented with advisory panels of the major foundations. The list of NGOs was taken from the FOA database and includes all organisations officially recognised as having the right to be consulted on legislative issues, including all unions and their main organisations, employers' organisations, national sports associations, environmental organisations, and so on. This list was supplemented with networks of various character that did not fit with other lists, such as publicly known elite networks, like the groups in The Danish Management Society (VL-groups). The list of events included all publicly listed balls and official dinners held by the royal family from 2009 to 2013. Also included were the annual meetings of top state bureaucrats, royal

hunting parties and special events with royal attendance, and major royal events, dating back to 2009. Some of the older guest lists were kindly donated by journalists.

TABLE 1: AFFILIATION NETWORKS INCLUDED

	From original sources	Excluded*	Added in Snowball sample†	Final number of affiliation networks	No. of relations
State ¹	2,328	1,780	327	875	10,230
Parliament ¹	153	101	31	83	970
NGO ¹	749	144	922	1,527	16,436
Corporations ²	1,136	34	40	1,142	7,476
Foundations ²	1,380	18	83	1,445	8,181
VL-Networks ³	117	3	0	114	3,845
Commissions ⁴	116	44	0	72	1,121
Events ⁵	74	0	0	74	14,582
Total	6,053	2,124	1403	5,332	62,841

¹ Source: Danish Public Administration Database (www.foa.dk)

² Source: The list of largest corporations according to turnover and list of all foundations in the Danish Central Business Register (obtained through www.biq.dk)

³ Source: Homepage of VL-networks (www.vl.dk)

⁴ Source: Registration of political commissions from 2005-11 made by Danish weekly newsletter A4.

⁵ Sources: Webpage of Danish Royal Family (www.kongehuset.dk) and private archive of journalist.

*Affiliation networks were excluded if no board of extra-organizational members existed, no information was available on the board neither online or through personal contact, the board were included from other sources as well or the board was entirely overlapping with another board within the same organization.

†This includes both subcommittees within the organizations on the original list and the 142 networks obtained through snowballing the affiliations of prominent actors.

Phase 2: Network collection

The inclusion of groups in the networks by the many small snowball samples was guided by three rules. First, the groups must connect individuals across organisations. This excluded groups that were internal to organisations. When looking at nested organisations, such as a holding corporation and its subsidiaries, this distinction could be difficult to maintain, but if the group, such as the board of a subsidiary, had members whose primary occupation was in a different organisation or across several organisations, then the group creates interorganisational ties and was therefore included. The second rule of inclusion in snowball samples was that groups must have face-to-face interaction. All groups must meet physically at least once a year. The third rule of inclusion was that all groups must take decisions or integrate individuals at a national level. Making the distinction between the national and the regional level was the most difficult to do systematically. If two data collectors were in doubt as to the level of the group, it was included.

The events included in the dataset stand out from the rest of the groups collected by size and character. The mean number of individuals present at each event was 485, with a standard deviation of 608. Because they were events, they had attendees, not members. In the period 2009 until 2013, most of the 74 events were recurring royal events. Because they were recurring, such as hunting parties or dinners honouring foreign dignitaries, it was possible for smaller events to be aggregated into larger events. This aggregation also formed the basis for the weighting principle for events, which will be addressed below.

Phase 3: Name-matching

The quality of the data was controlled by name-matching and analysis of overlaps between groups. This required special attention as data quality is more important within social network analysis than in most quantitative methods. Missing or false ties have an impact on the most prominent centrality measures, but the analysis of cliques and group memberships is especially vulnerable. Each of the 62,841 positions in the data were checked to ensure recurring names referred to the same individual and which individuals shortened names referred to. This was a very time-consuming and conservative process, as it relied on the descriptions that were collected from the organisations' webpages, and on web searches. Duplicate names were treated as the same person only with confirmation from several sources. Checks were made for names with different spelling and additional middle names used only occasionally.

Phase 4: Quality control

Positions and groups were also checked for doublets, e.g. groups that have been collected twice under different names. This was essential as the method is vulnerable to this error. As a result, all groups with a 75 per cent overlap were checked for uniqueness.

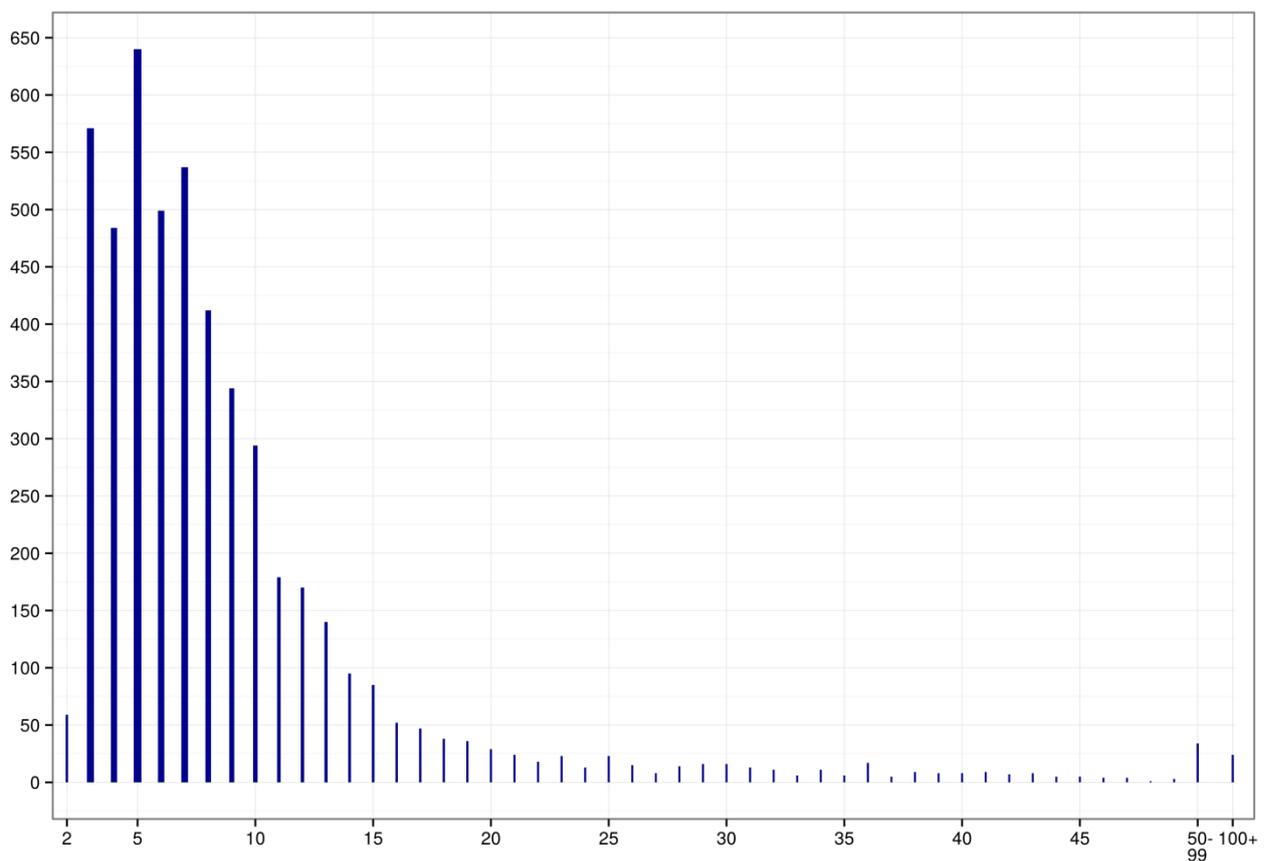
Many methods and principles for data collection set heavy restraints on what can be included in the data and these restraints often result in relatively arbitrary decisions on the inclusion of borderline or grey-area data. The inclusion principle used here is a viable principle for a collaborative project that uses several data collectors.

Methods: How to account for heterogeneity of the networks

With data from such diverse sources as those mentioned above, arises a problem of heterogeneity of affiliations. As seen in Figure 1, 4189 of the 5332 affiliations had 14 or fewer members. However, the larger groups, and particularly the events, had up to 2184 participants. The largest network, the

participants at the celebration of the 40-year reign of the Danish Queen, thus contained more than 24,000 times more edges than a board of 14 members. If not weighted in some way, these networks would be the primary sources of integration, especially as the number of ties created by each affiliation is the squared number of participants. If regarding the affiliation networks as ‘focused gatherings’ (cf. Goffman 1961), the vast differences in network size should be handled by taking into account the potential for production of solidarity through interaction (Marsden and Campbell 1984). We suggest two weighting procedures: first, a weight based on size of the affiliation; and second, a weight based on a reduction of the integration created between individuals with multiple ties. A simple weighting procedure to take into account the particular nature of events is proposed.

FIGURE 1: AFFILIATIONS BY NUMBER OF MEMBERS



The character differences of affiliation networks raise another problem associated particularly with events. Events are unique gatherings, happening only once, as opposed to, for example, the monthly meetings of corporate boards. Therefore, events were grouped according to their type and generated a full tie only between participants of all the events within the group. Guest who took part in only some of the events received a tie strength proportionate to the share of the events they took part in together.

To account for the heterogeneity in cohesive potential for each affiliation, each edge created by an affiliation was subject to a weight, ω_e , of decreasing tie strength:

$$\omega_e = \sqrt{\frac{\sigma}{n_a}} \text{ if } \sigma < n_a \quad (1)$$

$$\omega_e = 1 \text{ otherwise.} \quad (2)$$

where n_a is the number of members of each affiliation and σ is a constant referring to the number of individuals that causes the network participation of each member to drop. We set $\sigma = 14$, as action-taking subgroups are usually formed around no more than 10 participants (James 1951). Adding to this, 14 is roughly equal to the maximal size of human ‘sympathy groups’, usually ranging from 10 to 15 (see Buys and Larson 1979; Zhou et al. 2005). Furthermore, by gathering data on the affiliation networks, we observed that the greater the number of participants, the less frequent were the meetings. This weighting therefore takes into account both level of participation and frequency of meetings. In this case, gatherings of 14 fewer members were seen as equally integrative, whereas a gradual decrease in tie strength (ω_e) or level of integration between participants, was seen to be created in affiliations with more than 14 participants.

Several individuals had multiple ties. Meeting in more than one setting of course creates potential for a stronger tie. Hence, after applying the weight based on affiliation size as mentioned above, we added another weight using the sum of all ties between all pairs of individuals, $\sum e_{ij}$.

$$\omega_{e_{ij}} = 1 + \ln(\sum e_{ij}) \text{ if } \sum e_{ij} < 1 \quad (3)$$

$$\omega_{e_{ij}} = \sum e_{ij} \text{ otherwise.} \quad (4)$$

However, this effect wanes when one is tied not just twice or thrice, but seven or eight times. Therefore, a logarithmic decrease in the integrating effects of mutual affiliations was added for pairs of individuals closer than a tie strength of 1. A tie strength of 1 is therefore equal to that of two individuals sharing an affiliation on a board of 14 or fewer members, and any further ties are valued less than 1. By inverting $\omega_{e_{ij}}$, it is possible to calculate the *distance*, d_{ij} , between two connected individuals:

$$d_{ij} = \frac{1}{\omega_{e_{ij}}} \quad (5)$$

This conversion is important when calculating the shortest paths between individuals. A tie with a weight of 2 translates into a shortest path between the two individuals equal to two steps in an unweighted network.

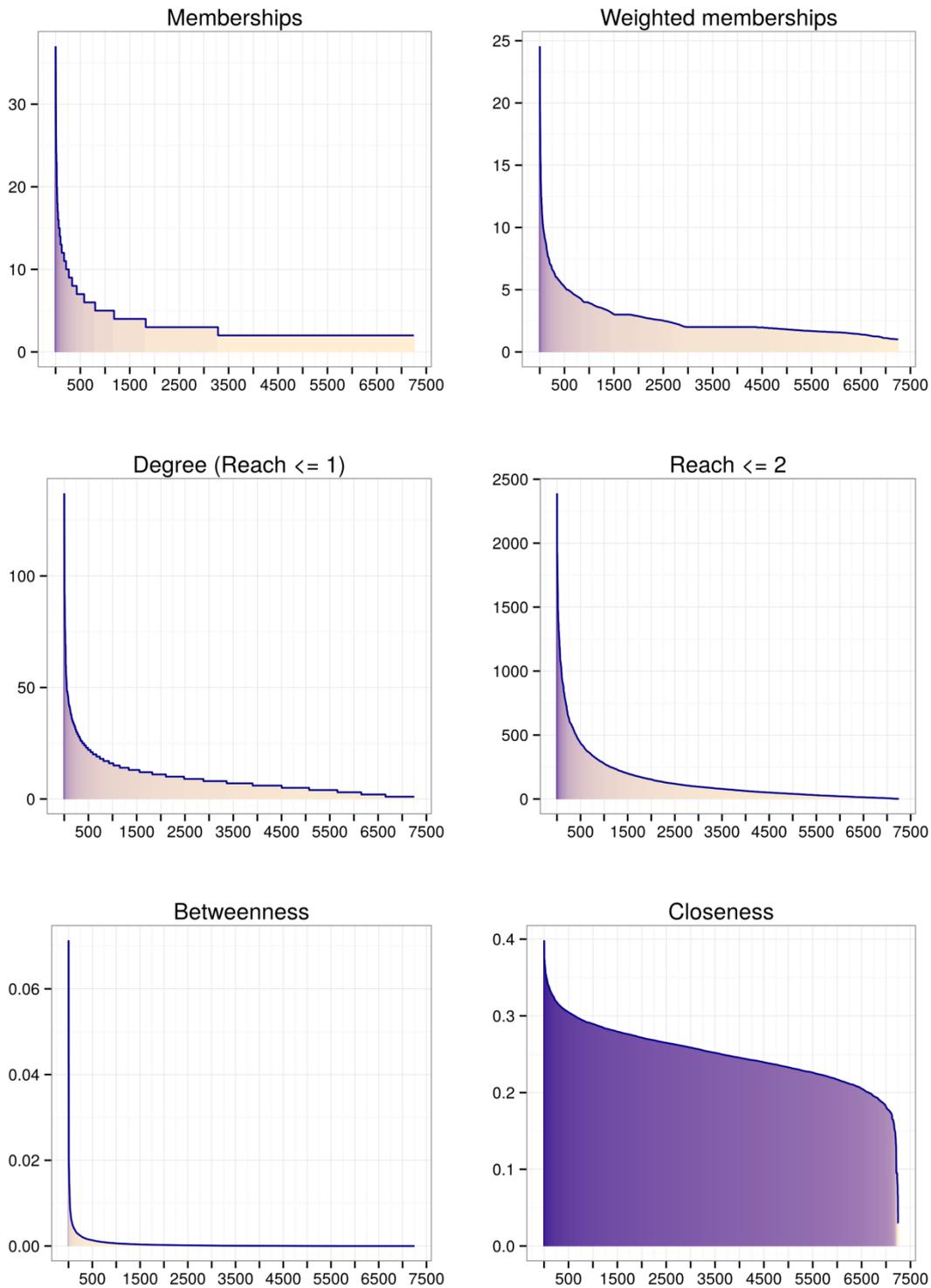
For computational purposes, the analysis of this affiliation network can be reduced to individuals who participated substantially in the social integration of the elite network. By excluding Individuals for whom the sum of all weighted affiliations $\sum \omega_{a,i} \leq 1$, we are left with individuals with more than one affiliation *and* having a level of participation corresponding to more than one sub- σ members group. In this case, those individuals who were included were part of at least one affiliation with 14 or fewer members *and* some other affiliation and thereby had an amount of total weighted affiliations adding up to more than one. Following this procedure, we reduced the members of the elite network from 37,750 to 7,400. Furthermore, 151 of the 7,400 were not connected into the giant component, leaving us with 7,249 *linkers* in the elite network. Thus, the weights served a dual purpose: to handle the different levels of social integration created by affiliations with huge differences in member number; and to ease the computational process by reducing the number of individuals in the network in a simple way.

The accumulation of network resources by the elite

The linkers are interesting not only for technical purposes. The fact that only one in five of the members of the elite network were substantial participants stresses how network resources are accumulated by a small proportion of actors, even within a highly egalitarian society such as Denmark. With an adult population of 4,378,227, less than one per cent of Danes were among the 37,750 with any affiliations in the elite network, making even this group very exclusive. In the entire network, only 916 affiliations were not connected to each other in some way. The largest component comprised 33,035 individuals, more than 900 times larger than the second largest component with 36 members, underlining the clustering tendency within the power network.

Even within this large component, there were vast differences in the level of integration. As seen in Figure 2, all centrality measures (see Faust 1997; Freeman 1979) followed a power law distribution (Barabasi and Albert 1999), with a very small group at the top of the distribution. When looking at the reach (the number of individuals assembled within a distance of 2.1 or less) and closeness centrality, it appears that a rapid increase in centrality arises around the 400 most central individuals. Thus, it appears that only about one in 20 of the linkers composed a core of well-connected individuals.

FIGURE 2 CENTRALITY MEASURES IN THE DANISH ELITE NETWORK OF LINKERS



Distribution of centrality measures in the network of linkers (having a sum of all weighted ties: $\sum \omega_{e_{ij}} > 1$). Betweenness and closeness centrality have been normalized. Note that the 30,501 that are not linkers would lead to graphs with an even clearer power law distribution. Weighted memberships is calculated as $\sum \omega_{e_{ij}}$.

Identifying the core elite group

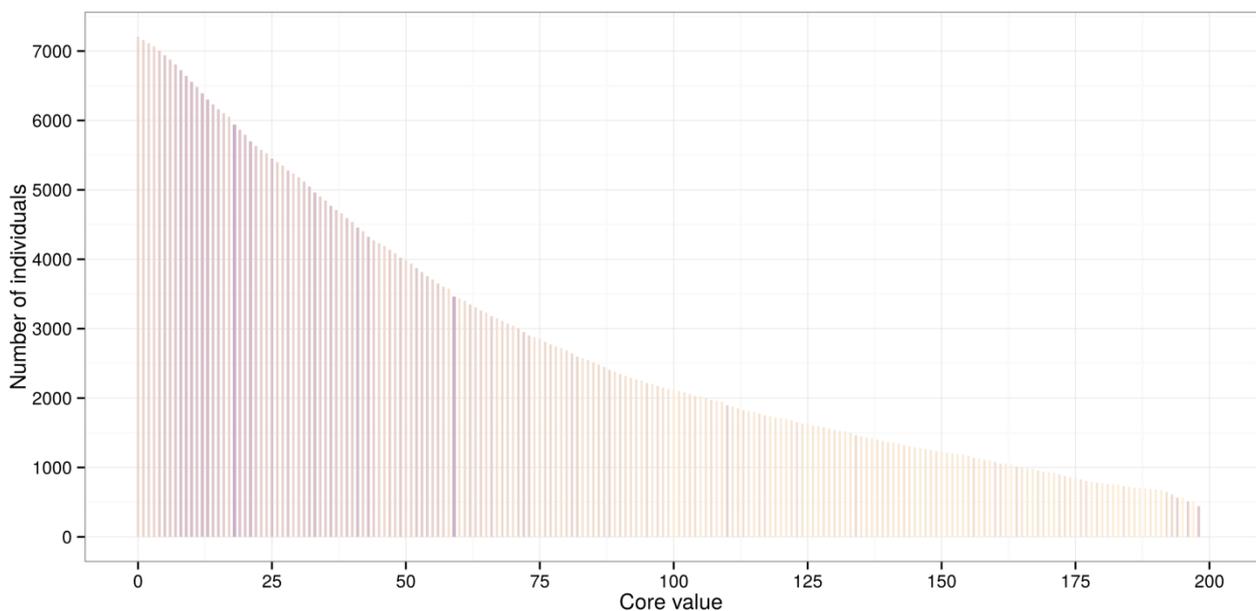
The elite network showed a clear core/periphery structure and a small group of individuals appeared to be part of a cohesive subgroup. However, it is difficult to go from continuous centrality measures to discrete groups in a reproducible way. Groups identified through other techniques, like those based on clique membership, such as social circles (Alba and Kadushin 1976; Alba and Moore 1978) or clique-percolation (Palla et al. 2005; Vedres and Stark 2010), are difficult to use in affiliation networks. Affiliation networks are inherently organised into large cliques, where each affiliation forms a clique. Block modelling (Boorman and White 1976; White, Boorman, and Breiger 1976) focuses mainly on identifying actors occupying similar roles rather than being part of cohesive subgroups (Burt 1978). Thus, the aim of identifying the core is to establish a cohesive, central group, rather than to identify a group of key actors who play an important role in the diffusion of information (Borgatti 2006; Moody and White 2003) or who share structurally advantageous positions bridging different sectors (Burt 2004; Vedres and Stark 2010).

Instead, we suggest using a modified version of k-cores developed by Seidman (1983). K-cores are a central subcomponent within which all individuals have the highest possible numbers of internal ties. Each individual is assigned a coreness score corresponding to the minimum degree of individuals they are connected to. By decomposing an entire component, or progressively removing individuals with the lowest degree until further removal of individuals from the component leads to a decrease in the minimum degree, we eventually arrive at the core group. The final group with the highest coreness score is the only group in the network in which every individual is connected to at least k other individuals. K-core decomposition also assigns a coreness value of all other individuals, corresponding to the minimum degree of individuals when removed from the core. Hence, the coreness score also describes how close an individual is to the core of the network.

This allows us to see all connected individuals as part of nested groups. By using weighted ties, Doreian and Woodard (1994) suggest a threshold, w , for identifying boundaries between levels of integration within networks. Whereas Doreian and Woodard used the threshold to include only individuals who are strongly directly connected with the core, Friedkin (1984) showed that shared social circle membership and the quantity of shared contacts increases the likelihood of consensus, particularly among those not directly tied. Hence, we suggest a solution that allows cohesion to be made through indirect ties as well, by constructing an adjacency matrix based on weighted shortest paths of 2.1 or less. Pairs of individuals can have the same strength of relation, whether connected through one large

affiliation or through an intermediary. When identifying the core, we suggest using a threshold for the maximum reach, r , at which two individuals can still be seen as connected. If r is set at 2.0, individuals not directly tied can only be tied through an intermediary if at least one has several ties to the intermediary, or they are both tied to the intermediary in affiliations smaller than the value σ . To make the core a little less sensitive to the exact value of σ compared to individuals tied through larger affiliations or with strong ties to intermediaries, we suggest setting $r = 2.1$. However, the exact value of r should be assessed considering the total amount and character of all included affiliations.

FIGURE 3: CORE COLLAPSE SEQUENCE OF THE DANISH ELITE NETWORK

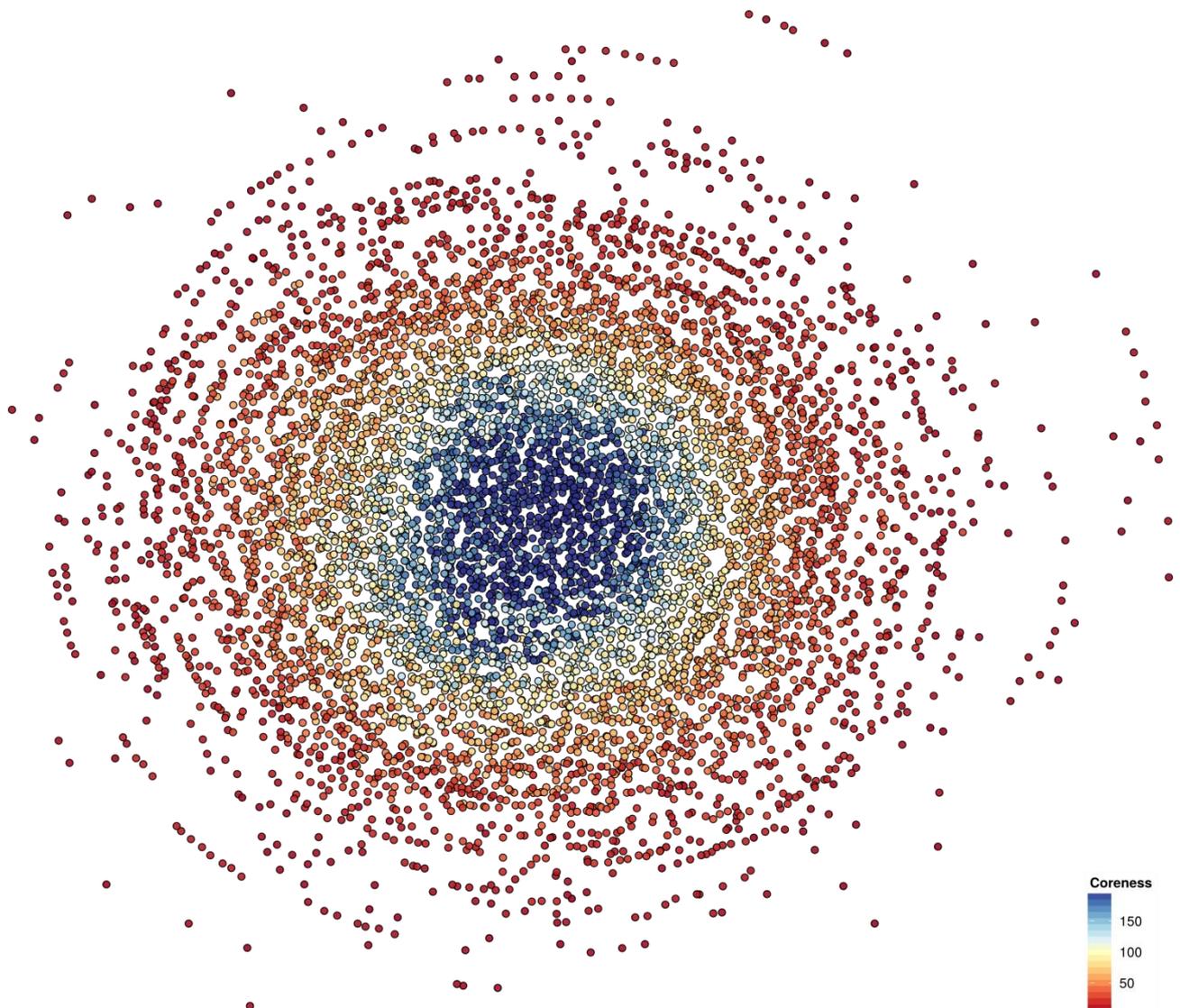


Core collapse sequence of the network of linkers where everyone within reach 2.1 is regarded as connected. Color denotes number of individuals removed in each sequence.

Analysing the entire network, a group of 443 individuals all have a coreness score of 199. This means that no individuals can be removed from this group without lowering the minimum degree of group members. Of the 443 in the core, 20 are secondary actors (cf. Faust 1997), only having affiliations that are a sub-sample of another individual's affiliations. Because of the weighting procedure outlined above, sharing ties to very central individuals could have the effect of having many ties only because of several shared memberships with central agents. This problem is worsened by differences in institutional organisation, for instance where a large organisation has many external subsidiaries with relatively independent boards, but the heads of the large organisations are present in all subsidiaries.

Because this could lead some actors to become very closely tied, we suggest that secondary actors are removed from the core. However, removing individuals should always be subject to investigation of the reason for their network overlap. In the Danish case, the affiliations of the Prince Consort Henry are completely embedded in that of Her Majesty Queen Margarethe II, even though alone he is part of 37 affiliations and events. Thus the Prince Consort is included as part of the core group, as he has four times the number of affiliation memberships than any other secondary actor.

FIGURE 4: THE NETWORK OF LINKERS IN THE DANISH ELITE NETWORK BY CORENESS SCORE



As seen in Figure 3, the core value increases as individuals are gradually removed. Individuals removed at a later stage can be regarded as embedded in a larger core with a lower core value (Seidman 1983). Therefore, the coreness score can also be used to separate the rest of the network according to proximity to the central core. By simply dividing the rest of the networks of linkers into thirds by their

coreness score, an approximate division of the linkers according to their proximity to the power elite is possible. Hence, as shown in Figure 4, we can identify four nested groups in the power network: 423 members of the power elite; 1,094 in higher middle levels of power, whose connections are close to bringing them into the power elite; a lower middle level of power containing 1,661 members and the group of 4,071 in the periphery of the power network. In addition, there are of course the 27,152 not included in the network of linkers and the rest of the population totally excluded from the Danish elite network. Note that no large subgroups were excluded at any point in the core collapse sequence. This suggests that the network has a single core, to which groups with lower coreness value are more or less connected, rather than several centres that collapse in blocks.

TABLE 2: KEY INDIVIDUALS IDENTIFIED THROUGH POSITIONAL METHOD IN THE CORE

Key Positions*	Not part of the core group	Included in the core	Percent included
Academia ¹	7	13	65.0%
Administration ²	17	13	43.3%
Upper class (20 most wealthy) ³	16	4	20.0%
Business leaders from top 50 corporations ⁴	48	52	52.0%
Church (all Bishops)	10	0	0.0%
Culture ⁵	4	3	42.9%
Media ⁶	22	5	18.5%
Organisations ⁷	8	24	74.2%
Politics ⁸	19	13	40.6%
Royalty ⁹	0	4	100.0%
All	151	131	46.5%

*Note that one individual, e.g. the Prime Minister, who is also leader of a political party, can hold more than one position.

¹ University principals and chairmen of university boards and leaders of the public research foundations and the scientific society.

² Permanent secretaries, Director and Chairman of National Bank, President of the Supreme Court, Chief of Police, Chief of Defense, director and elected chairman of regional and municipal organisations and Head of Economic Council

³ List of 100 most wealthy individuals and families in Denmark. Source: <http://www.business.dk/dkriqeste2013>

⁴ Chairman and CEO of the 50 largest Danish corporation (no subsidiaries included) according to turnover.

⁵ Directors of the National Museum of Art and History, Director and Chairman of the Royal Theatre and largest publisher and chairman of the state art foundation.

⁶ Director-general and chairman of the board of the two state-owned broadcasters, editor-in-chief, chairman of the board and CEO of all national newspapers with more than 20,000 daily copies.

⁷ Presidents of all unions with more than 40,000 members, President and director of all major business associations, CEO and chairmen of pension funds controlled by these organizations.

⁸ Cabinet, leaders of all political parties in the Parliament and Speaker of Parliament.

⁹ Queen, Price Consort, Crown Prince and Crown Princess.

As seen in Table 2 and 3, the core group deviates quite significantly from a formalistic definition of powerful positions. Almost all individuals within the population defined by this positional approach are included in the affiliation network. While formal leaders in the royalty, trade unions, business associations, academia and the largest corporations to a large extent are members of the core, only little more than half (52) of the business leaders found through the positional method are part of the core. Considering that 179 businessmen are part of the core, this highlights that economic size does not translate directly into social capital. The corporate positions excluded from the core, however, are from less prestigious, peripheral firms, from corporations controlled by cooperatives or representing foreign capital not symbolically integrated into the Danish power elite. This is underlined by the fact that very few of the extremely wealthy families are represented in the core. The very rich who are included are largely tied to the large corporations that their families own. From politics, only key cabinet ministers, such as the prime minister, secretary of state, treasury and minister of commerce are included. Leaders of political parties without government experience do not form part of the core and very few members of parliament are represented. Rather, the 24 politicians in the core are, if not key cabinet secretaries, key regional leaders, particularly mayors from the largest cities. Very few individuals in the core hold positions in cultural life and less than one-fifth of the people with key positions in the media are included in the core. The strength of business, business associations, unions and the scientific community—with economists in a central position—is indicated by many individuals from these groups forming part of the core without having a leading position in their sector.

TABLE 3: CORE INDIVIDUALS INCLUDED IN POSITIONAL METHOD

Sector affiliation of all core members*	No position in positional approach	Position in positional approach	Percent Included
Business: Investment and Pensions	15	4	21,1%
Business: Medium-small	29	7	19,4%
Business: Multiposition ¹	46	9	16,4%
Business: Top 200	37	37	50,0%
Culture and Law: Culture and charities	3	1	25,0%
Culture and Law: Law	8	0	0,0%
Interest groups: Consumers	3	0	0,0%
Interest groups: Employers and business	30	7	18,9%
Interest groups: Farming	10	1	9,1%
Interest groups: Unions	38	11	22,4%
Science and education: Economists and political scientists	14	1	6,7%
Science and education: Education	8	0	0,0%
Science and education: Other scientists	15	4	21,1%
Science and education: University leaders	3	7	70,0%
State and politics: Politics	24	10	29,4%
State and politics: Public Officials	19	11	36,7%
State and politics: Royal court	7	4	36,4%
All	309	114	27,0%

* Sector is defined according to full-time employment. Source: Either description in data or personal profile on the web.

¹ Multipositional denotes working chairmen that do not have a primary employer, but who have spent the bulk of the career in the corporate community.

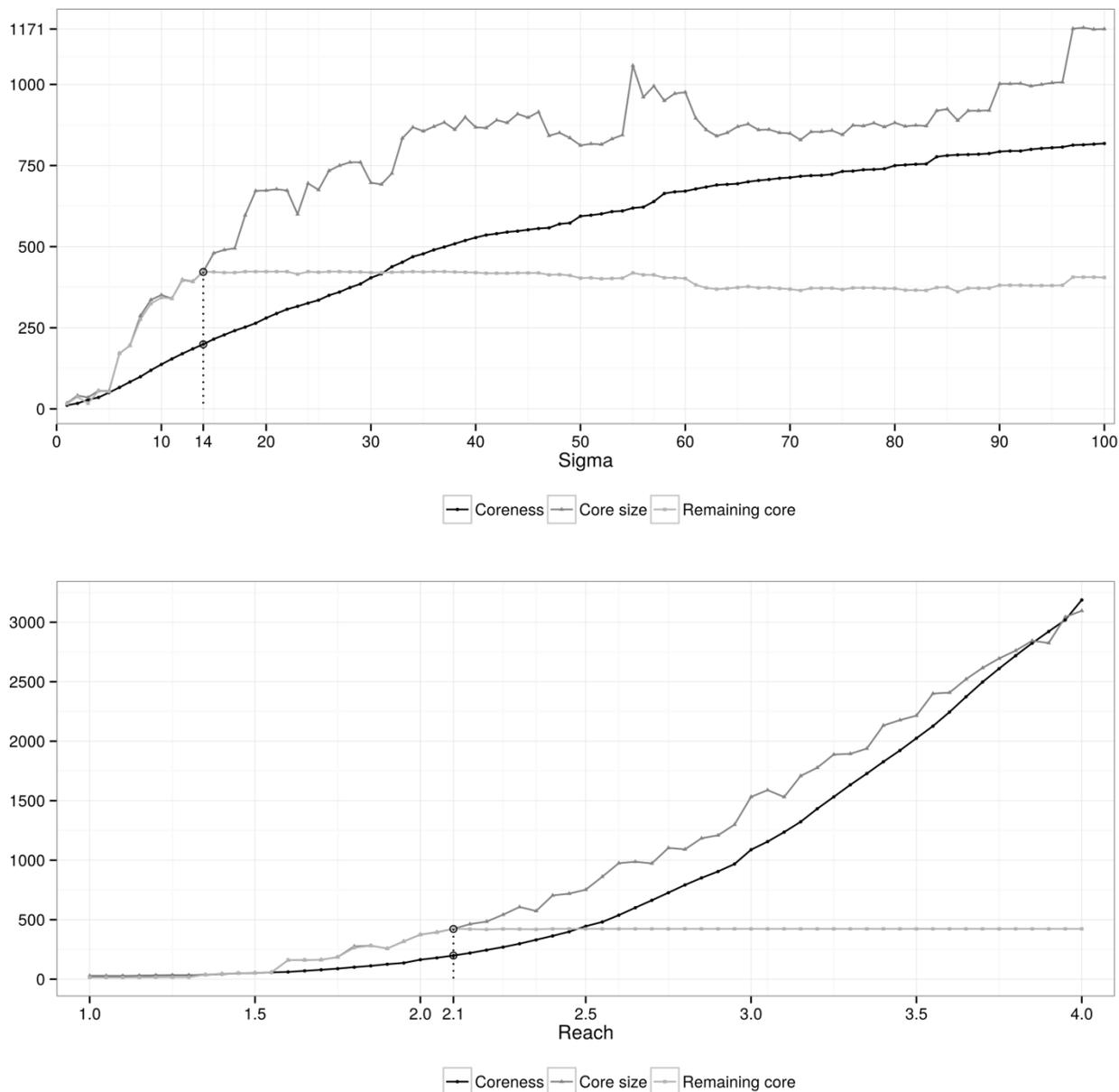
Discussion: A comparative methodology for power elite identification?

The methodology outlined above—gathering affiliations through the inclusion principle, weighting the ties according to affiliation size and identifying the largest k -core within a distance of r as the cohesive elite—circumvents the problem of determining boundaries of the power elite. By following this approach, both the size and composition of the power elite are defined through empirical analysis. Furthermore, the approach can be reproduced in different nations or over different periods of time. Ad hoc decisions are reduced to:

1. The baseline of members in a network, σ , to be treated as equally integrative
2. The value of the distance threshold, r , for a pair of individuals to be treated as tied together and the application of the weight on having multiple ties between pairs of individuals.

As we will discuss now, the results of the overall analysis are relatively robust even when networks are excluded or the parameters changed within reasonable limits. Furthermore, we will show the relative importance of the different sources in identifying affiliation networks.

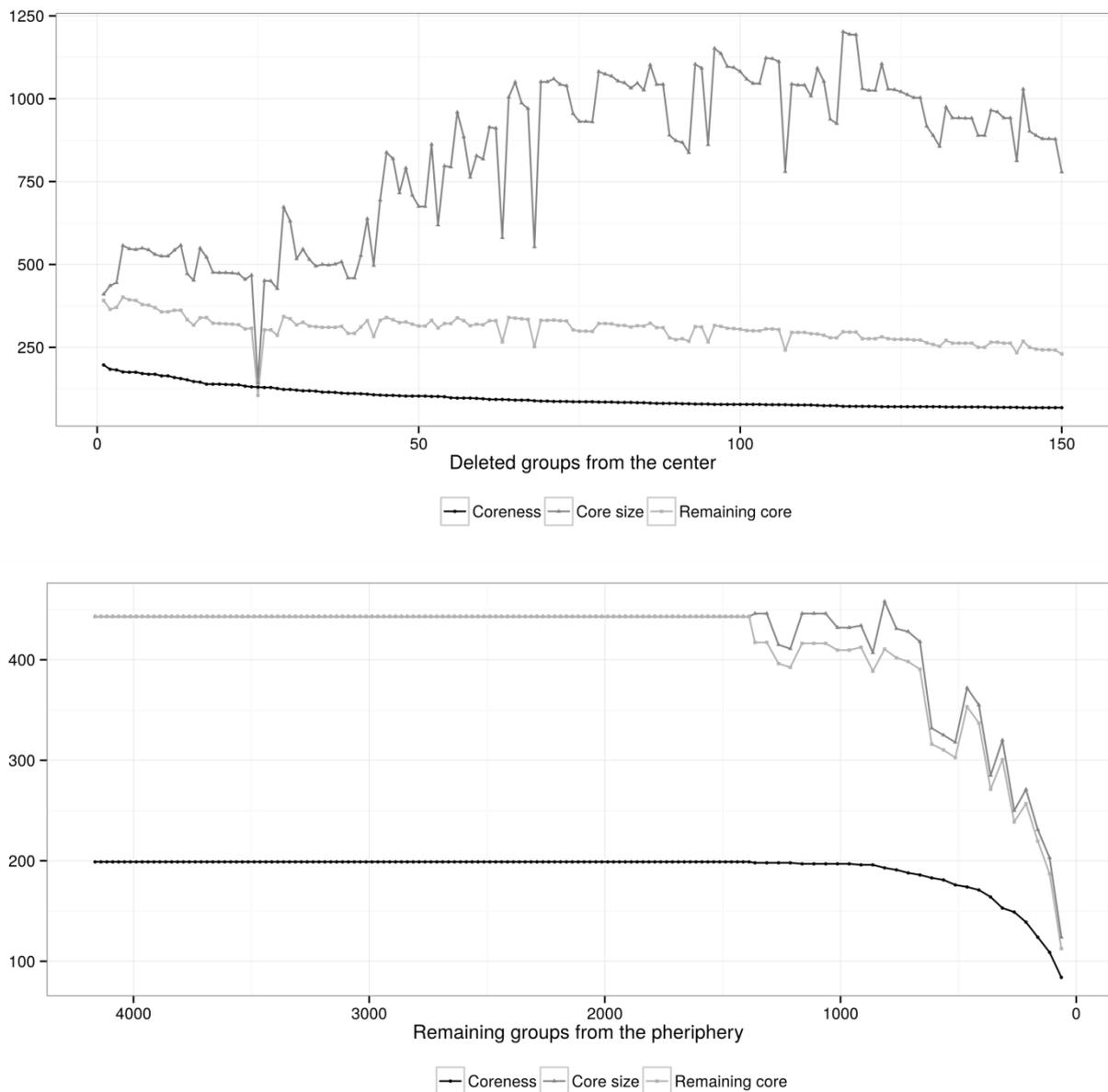
FIGURE 5: CONSEQUENCES OF CHANGES TO σ AND R



Changes to both σ and r determine the size of the identified elite quite simply, as seen in Figure 5. The larger the values at which both are set, the more individuals are included in the core, the coreness value rising accordingly. However, when σ and r are set below the value suggested in the present analysis and fewer individuals are included in the core the members of the smaller cores identified are also members

of the core identified at the thresholds from this analysis. When these constants are set low, the most cohesive organisation in the elite network, the government, composes almost the entire core. When changing these parameters it is necessary to consider the role of affiliation size, the probability of integration across more than one tie and evaluation of the types of affiliations included. Changes to these parameters affect which actors are included in or removed from the periphery of the core, while the central actors remain the same. Yet the question of the size of the power rests on the assumptions implied in the values of σ and r .

FIGURE 6: MEASURES OF CORE STABILITY WHEN DELETING THE MOST CENTRAL GROUPS AND WHEN DELETING GROUPS FROM THE PERIPHERY



The strength of using the inclusion principle as a way to address the boundary specification problem is seen in Figure 6. As the least central affiliations, according to their weighted in-degree, are removed from the analysis, the coreness score of the k-core, core size and number of individuals remaining in the core identified using all affiliations all remain roughly the same, until about 1,000 affiliations remain. When affiliations among the 1,000 most central groups are removed, the size of the core drops dramatically; however, those remaining in the core still belong to the core identified when analysing on the entire affiliation network. When deleting the central affiliations, the results are more troublesome. After removing about 60 of the most central group the size of the core group has doubled, leaving only about three-quarters of the original core group in this much larger core. The internal cohesion of the group, as shown by the coreness value, is also halved from 199 to about 100. Clearly, it is of paramount importance to include the majority of the most central affiliations. This requires the researcher to be thorough when snowballing affiliations from key actors and to focus their effort on gathering data from central affiliations.

If this proposed methodology is to be applied to other settings, the analysis needs to be somewhat robust to the removal of some the sources described in Table 1. If all affiliations from a source are removed, the approach offers roughly the same overall analytical results, as seen in Table 4. The weighting procedures ensure that even if removing two-thirds of all edges by taking out all events, 91% of the core—a core still composed of about 400 individuals—is made of the same individuals. However, removing all affiliations from the state and NGOs would lead to a much smaller core, of which nearly a quarter is not part of the power elite in the complete analysis. Removing corporate networks creates the smallest core of fewer than 300 individuals. Thus, affiliation networks from the state, organisations recognised by the state, and the large corporations are essential for reproducing this methodology, whereas limits to access to other sources are of less importance, at least in the Danish case. Removing sources usually led—with affiliations from corporations as the notable exception—to the identification of a numerically smaller core with a lower minimal degree per core size. However, removing the most exclusive network—the commission and snowball networks—actually expands the core, but lowers the coreness value drastically.

Removing key sources not only removes individuals from the core, but also has a profound impact on which sector representatives remain in it. Surprisingly, as seen in Figure 7, removing organisations affects individuals working in the corporate sector, showing how ties made in business associations and policy planning groups are key for business integration in the power elite. Removing state ties not only leads to fewer individuals working in the central administration and the scientific sector, but also has

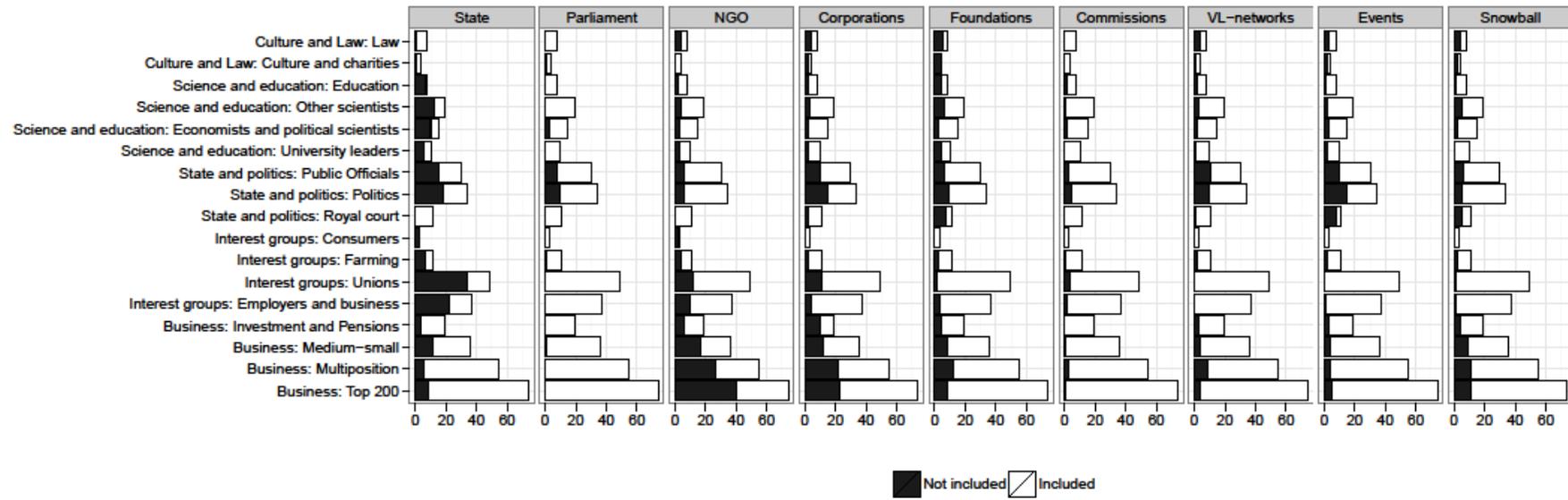
TABLE 4: NETWORK AND CORE CHARACTERISTICS IF ALL AFFILIATIONS FROM EACH SOURCE ARE REMOVED

Source* removed:	Size of component	Number of edges	Density	Core- ness value	Core size	Core value per core size	Excluded individuals from core	New indivi- duals	Share of Secon- dary actors	1. Power Elite	2. Higher levels of Power	3. Middle levels of Power	4. Lower levels of Power	Individuals in core holding a position from positional approach	Represented positions from positional approach in core
State	5385	238426	0.016	135	330	0.41	169 (40%)	76 (23%)	9%	358 (7%)	698 (13%)	1229 (23%)	3100 (58%)	81 (25%)	98 (39%)
Parliament	7127	302010	0.012	194	428	0.45	25 (6%)	30 (7%)	6%	453 (6%)	986 (14%)	1655 (23%)	4033 (57%)	94 (22%)	107 (43%)
NGO	4428	209786	0.021	115	350	0.33	154 (36%)	81 (23%)	14%	398 (9%)	925 (21%)	1256 (28%)	1849 (42%)	107 (31%)	121 (48%)
Corporations	6124	290390	0.015	167	295	0.57	129 (30%)	1 (0%)	5%	308 (5%)	969 (16%)	1603 (26%)	3244 (53%)	87 (29%)	103 (41%)
Foundations	6125	273052	0.015	170	381	0.45	89 (21%)	47 (12%)	7%	409 (7%)	936 (15%)	1584 (26%)	3196 (52%)	100 (26%)	117 (47%)
VL-Networks	6661	305290	0.014	190	393	0.48	65 (15%)	35 (9%)	8%	425 (6%)	1069 (16%)	1625 (24%)	3542 (53%)	91 (23%)	106 (42%)
Commissions	7057	315013	0.013	183	475	0.39	27 (6%)	79 (17%)	7%	508 (7%)	897 (13%)	1698 (24%)	3954 (56%)	120 (25%)	138 (55%)
Events	6885	102270	0.004	187	393	0.48	65 (15%)	35 (9%)	6%	418 (6%)	1014 (15%)	1700 (25%)	3753 (55%)	92 (23%)	105 (42%)
Snowball†	6842	299878	0.013	157	448	0.35	69 (16%)	94 (21%)	7%	448 (7%)	1122 (16%)	1811 (26%)	3461 (51%)	102 (23%)	120 (48%)
All sources included	7225	326746	0.012	199	423	0.47	-	-	5%	423 (6%)	1094 (15%)	1661 (23%)	4071 (56%)	107 (25%)	124 (50%)

*See table 1 for description of each source.

† These include only the 142 affiliations added through following networks of key actors.

FIGURE 7: SECTOR AFFILIATION OF INDIVIDUALS NO LONGER INCLUDED IN CORE AFTER REMOVING SOURCES



profound consequences for the involvement of unions and business associations in elite networks.

Although removing events, as mentioned above, does not cause the core to alter much, members from the royal court and also politicians would not be part of the core if events data had not been included.

The importance of the social integration created by the neutral spaces of common public recognition should lead researchers to focus on networks created by symbolic events.

Extensions: Organisations, dominance, informal and former ties

As a two-mode network, the ties that integrate the affiliations can be subject to the organisational weight in Equations (1) and (2). Ties between affiliations can then be viewed as directed ties; small affiliations receive considerable information and integration by being tied to larger affiliations because the smaller forum can discuss and listen to perspectives from each member more thoroughly. Thus, the power of organisations can be assessed as well (see Mizruchi and Galaskiewicz 1993).

Although the inclusion principle assures that a great variety of affiliation networks is included in the analysis, several types of relations have been overlooked in our approach. Two types of relations that create stronger cohesion would be particularly important to include:

1. Informal relations, such as friendship or kin
2. Relationships created in the past.

Friendship relations could be investigated through surveys, but would probably lead to a massive boost of centrality among respondents compared to non-respondents. Data on family and kinship could be obtained through biographical databases, newspaper archives or public registers, but would be limited to the most publicly covered part of the population, skewing ties towards prominent individuals. Furthermore, ties of politicians and members of the press could tend to be more informal, as institutional ties to other powerful institutions could lead to claims of conflict of interests. Inclusion of ties made through co-authorships, co-appearances in the media and at events could shed more light on the cohesion between politics, media and the rest of the power elite; however, the demands of checks and balances could still lead to some separation in the power elite.

Former ties should be included in the analysis of elite social integration if reliable and comprehensive data are available. If a database such as the one used in this analysis is updated yearly, former ties could be included fairly easily; however, the relative loss of integration as years go by should be accounted for, perhaps by subjecting each weighted tie to a half-life, $t_{1/2}$, each year. This would be especially important for those with elite careers spanning different sectors. This would enable the researcher to

better assess the level of integration within the power elite. Former ties would prove especially valuable for understanding the connection from politics and central administration to other spectral institutional hierarchies; politicians, for example, often affiliate themselves with other sectors after their political career—a sort of cohesion created by elite circulation through individual career paths, described in France as ‘pantouflage’ (Bourdieu 1996:266).

The perspective on elite cohesion created through formal ties is in no way an exhaustive account of how the observed affiliation network works. As Urry (2004) points out, the actual content of the ties remains very much in the dark. Whereas the ties can probably serve as vehicles for information exchange (cf. Granovetter 1973), symbolic integration through co-membership, and perhaps cohesion created through the solidarity of interaction ritual chains (cf. Collins 2004), actual control and prominence, cannot be assessed by the analysis of undirected ties (Knoke and Burt 1983). To understand how the diverse affiliations aggregated in this analysis work in actual power struggles, it is necessary to obtain much more empirical detail of the actual interaction patterns of each affiliation. Furthermore, cohesion cannot be assessed only through socio-metric proximity or role equivalence. Integration in the elite, as discussed in elite theory (Bourdieu 1996; Giddens 1972; Miliband 1969; Mills 1956), is also tied to common social background, ties made in elite schools or universities, and the social homogeneity created through shared career and life experiences.

As data on networks from key social institutions in different national settings become accessible through the digital revolution (Savage and Burrows 2007), the approach outlined here becomes viable for comparative analysis of elite configurations across societies. Finding core groups in different nations was an ambition of the policy discussion network studies of American, German and Australian elite circles (Higley et al. 1991). Although Denmark is perhaps a paradigmatic case for the level of institutionalisation and publicly available data, as we have shown, the inner core of institutionalised power networks can also be approximated through data of a much lower granularity. Thus, historical comparisons should also be feasible. However, if power structure in formal networks has not crystallised, the inner core of the network is less likely to coincide with the power elite. This is especially the case if several groups openly fight for power—what Jeffrey Winters (2011) has called ‘warring oligarchies’, when power relations are based solely on symbolic relationships, such as kings and their subjects or the dominance exercised by clerics under theocracy. The proposed approach is therefore likely to apply only to modern democratic societies.

Conclusion: The power law of elites

Using the tendency of powerful individuals to cluster in certain affiliations, the question ‘Who are the elite?’ can be answered by identifying the core of an extensive elite network. This inductive approach lets the actual formal interaction between all holders of potentially powerful positions determine the boundary and composition of the elite. This approach requires data for a vast number of affiliations that connect individuals and organisations across sectors. The collection of these affiliations should be guided by an inclusion principle that prescribes the inclusion of all potentially powerful affiliations.

However, the integrative effect of these affiliations—ranging from the comfort of the boardroom to the splendour of the royal ball—wears down as the number of participants increases. By applying a weight, σ , the integrative effect of very heterogeneous affiliations can be compared. Furthermore, σ can be adjusted according to the assumptions of the researcher. In this case, affiliations of 14 or fewer participants are deemed to be equally integrative, whereas the integrative effect of affiliations above 14 members gradually deteriorates.

The power elite can be identified as the core group in a two-step procedure. First, including everyone within a certain sociometric reach, r , is deemed to be tied to each other. Once again, this parameter is adjustable to the assumptions of the researcher. In the present analysis, r is set at 2.1, thereby connecting individuals tied either directly through larger affiliations or indirectly through smaller affiliations. By finding the largest k -core in this network, the group in which most people are tied to the highest number of individuals within this group forms part of a cohesive elite. By using data gathered through the inclusion principle, following the weighting procedure of ties outlined above and finding k -cores of a certain reach, the number of ad hoc decisions for the boundary specification of the elite group can be reduced substantially. The assumptions used for σ and r are transparent, reproducible and easily changed.

Thus, power elites can be identified from the intersection of institutions’ hierarchies across time and space. The identification of elites through social network analysis thus offers a truly comparative methodology for investigating and understanding differences in elite composition for elite scholars in different settings.

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7. The power elite in the welfare state – key institutional orders of the power networks in Denmark

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Abstract

In Denmark, within a vast power network of 5,322 potentially powerful affiliations containing 37,750 individuals, a core group of 423 individuals was identified using social network analysis. The position of the core as the main broker between overlapping sectoral networks fits the definition of *the power elite* proposed by C. Wright Mills in 1956. The power elite sit where the circles of the key institutional orders within society overlap. The composition and size of this core group reflect the relative importance of different institutional orders and the concentration of power within the limits of the nation-state.

The key institutional orders in Denmark were identified by looking at the main employer of each power elite member. A small majority (52%) of the elite members were employed in the world of business as CEOs, chairmen of large corporations, or leaders in employers' and business organisations. Three other institutional orders – state and politics, science and unions – showed a strong presence, each constituting between 12% and 18% of the power elite. All of the institutions are central to the negotiation and regulation of the economy.

While spanning very different organisations, the power elite were integrated by factors other than their shared connections. They fit the bill of middle-aged white men with prestigious backgrounds. Only 19% were women. The offspring of a very exclusive upper class outnumbered elite individuals with a known background in the working classes by more than four to one. Almost half of the power elite (47%) had attended just eight university programs and were educated predominantly in economics, law, engineering, political science and business administration from a select set of Danish universities. The elite shared lifestyles, as seen by their geographic concentration in the most exclusive neighborhoods in Copenhagen.

Power elites in the 21st century Scandinavian welfare state reflected the historical process of integrating challengers to the networks of established elite without compromising the position of the incumbents.

Who are the members of the power elite in an egalitarian welfare state?

For each epoch and for every social structure, we must work out an answer to the question of the power of the elite.

C. Wright Mills (1956:23)

Who holds power and which major institutions, such as business or the state, do they work for? What are the governing interests in society? Are the elite unified or are there fundamental divides? What is the relative strength of labour versus employers? What is the role of the cultural and scientific elite? These questions are difficult to answer, but by mapping the institutional networks of affiliations between elite members we may get closer to answering these important questions. The case of Denmark, one of the most egalitarian, wealthy and stable nation-states in the world, is in many aspects the extreme.

When Charles Wright Mills (1956) famously dissected *The Power Elite* in America in the 1950s, three pillars of society were represented at the apex: the corporations, the president's cabinet and the military. But why were these institutions central to Mills' analysis? Through revolving doors, shared upper-class background, ties made in elite boarding schools and Ivy-league universities and, most importantly, the overlapping cliques of these three institutional orders, the potential elite were able to forge bonds to promote their shared interests in a way that was not open to members of institutions at lower levels of power, or the mass society. However, Mills (1956:269) was very much aware that this particular configuration of power was a result of historical struggles of 'institutional shifts' rather than the immanent distribution of power in modern societies. Raymond Aron (1950:9) attributed the differences between sub-elites performing different functions to 'the degree of separation between the groups and their relative strength'. Without assuming the dominance of business, generals and cabinet secretaries, the Millsian notion of the power elite can be used as a metaphor in identifying the key institutional orders, by asking: Which institutions are involved in the everyday decisions made across a nation-state? Denmark provides an extreme case for the application of the notion of power elites, as it is a political economy in a small state with a coordinated market economy and a redistributive Scandinavian welfare system known for collective bargaining and lack of military power.

The use of an approach based on identifying the core group in a vast network of all institutionalised power networks (see Ellersgaard and Larsen 2014) allows the identification of the institutional orders active in the core to remain an empirical question. The lure of the power resources generated by different institutional orders is indicated by the centrality of institutional representatives in the power network. This was identified by looking at the formal shared affiliations of the most central individuals.

The power network was generated from 2012 and 2013 data on the affiliation memberships of a broad range of institutions that potentially could be part of the key institutional orders in Denmark. The primary sources were the governing bodies of state institutions, organisations recognised officially by the state, and the large corporations, as well as participation in symbolic events or semi-formal leadership forums. This approach was thus inspired by the tradition of power-structure research (Domhoff 1975, 2013) and identification of elite social circles (Alba and Moore 1978; Higley et al. 1991; Moore 1979). However, the use of more than 5,332 affiliations, including more than 62,481 positions, allowed hitherto-neglected institutional orders to be identified as part of the overlapping cliques in the core of the power elite.

Because the power elite are based on the overlap of different institutional orders, their ability to achieve cohesion is hampered by the different interests vested in each domain and the characteristic differences of the organisational hierarchies through which elite members ascend. Although cohesion is generated through their social interaction across affiliations, it is also strengthened by shared social conditions, such as similarities in social background and education, but most importantly, their current lifestyle. This similarity highlights their distance from the general population.

To explore the composition of the power elite in the Danish society, we first show how central networks positions are concentrated among a very small minority; next, we show that this minority represents key institutional orders; and finally we show that in spite of functional differences between these institutional orders, there are social similarities that support the formation of the power elite. First, we turn to the particular Danish case. A power elite in a corporatist state with high levels of equality – a least likely case (cf. Flyvbjerg 2006) – does not only tell a story about elites in welfare state; it also shows how power elites, through the process of elite settlements, handle pressure from below in the form of strong social movements.

Elite circulation in the welfare state

Any stable elite must have the ability to incorporate new powerful groups, otherwise the incumbent elite are condemned to the historical ‘graveyard of aristocracies’, as Vilfredo Pareto (1991) famously put it. However, Pareto’s notion of virile challenging elites replacing incumbents through violent revolutions, according to another classical elite theorist, Roberto Michels (1949), does not account for

the fact that parts of the ancient elites still maintain privileged positions¹. When a contending faction of the elite successfully accumulates substantial power, in any form, they are commonly incorporated within the elite in a fashion that does not entail the complete removal of former elites, but rather a reconfiguration of the balance of power in a process of amalgamation. In tracing the origins of the three-headed American power elite, Mills (1956:269–78) showed how the relative strength of institutional orders – shown by their involvement with one another – has developed over time. Institutional orders enter the power elite in what Burton and Higley (1987) calls ‘elite settlements’.

Such an elite settlement gradually took place in Denmark (Higley and Burton 2006) with the establishment of genuine parliamentary democracy at the beginning of the twentieth century. The incumbent political elite, based on the landed aristocracy, industrialists, higher civil servants and military officers, was challenged by groups based first in rural and then in urban areas (Pedersen 1976). These political challengers – since tied to the most popular political parties – originated by and large in social movements. The rural challengers were an organised liberal movement among farmers gathered around co-ops, folk high schools and farmers’ associations. The urban challengers, on the other hand, were tied to the labour movement. Later, other social movements were successful in obtaining political influence or change. The pressure from suffragists and other social movements helped Denmark to be the first country in the world to grant universal suffrage in 1915. After the Second World War, consumer groups and environmental activists also achieved significant political influence. Furthermore, the above-mentioned social movements, in particular the farmers’ associations and labour unions, not only gained political influence but also became part of other elite spheres through state committees, corporations and a wide range of civil society organisations. For others, the experience and prestige from working in these movements and the social ties made through these movements aided a career trajectory ascending to elite positions.

The unions in particular engaged power resources in the class-related distributive conflict and partisan politics, which Walter Korpi (2006) attributed to welfare state development. The strength of organised labour led to a cross-class alliance between unions and business, resulting in a highly institutionalised system of collective bargaining – starting with the September settlement between unions and employers in 1899 – while also ensuring the representation of both organised labour and employer organisations towards the state (Due et al. 1994; Jensen 2012). In 1933 the alliance was broadened to include the

¹ The persistence of privileged groups at the apex of society has also been shown through the reoccurrence of surnames in prestigious academic institutions (Clark 2014) and through the importance of multigenerational ties (Mare 2011).

farmers, helping the latter through the Depression while introducing a social reform granting welfare rights to the population at large. With welfare states being challenged for several decades by the politics of retrenchment (Korpi and Palme 2003), the political ties of unions have weakened. The position and relative strength of these new institutional orders, which are based around social movements, remain unclear.

The institutionalisation of class conflict and a strong civic society have famously been used by Francis Fukuyama (2011) to describe ‘getting to Denmark’ as the best practice of many parameters in state-building. As a consensually united elite (cf. Higley and Burton 1989), challengers to elite power are amalgamated into the incumbent elite through a ‘negotiated economy’ (Pedersen 2006). Thus, violent overthrows of government arise neither from rural challengers, nor urban challengers based in labour unions, nor suffragists, even if the threats of uprising aided the willingness to integrate new elites by the incumbent elite. Still, the royal family has officially proceeded as heads of state almost without interruption for the millennium. The elite consensus is further strengthened by the fact that no political party – nor rarely even an ideologically united block – has held majority in parliament alone during the last century. Rather, in a system of high political stability politics is generally made through compromise between left and right.

In spite of the integration of new elites and high levels of general equality (Campbell and Hall 2006), there is a strong concentration of wealth and material power resources in Denmark (Winters 2011:278–80). Although the income of the one per cent has not risen as dramatically as in the US or UK since the 1970s (Alvaredo et al. 2013), studies (Davies et al. 2009) of somewhat problematic wealth data suggest that wealth is increasingly distributed quite unevenly, despite welfare state politics. Furthermore, large proportions of the largest Danish corporations remain under family or foundation control. Adding to the power of individual corporation owners, Danish business associations remain well-organised – particularly the Confederation of Danish Industry, which holds the majority vote within the Confederation of Danish Employers – and are highly active politically (Binderkrantz, Christiansen, and Pedersen 2014, 2015). Thus, corporate interests are promoted by both super-rich owners and efficient organisations rather than through the dispersed ownership of individual investors. However, the relative strength of corporate interest compared to union, political and state leaders within the Danish power elite has not been clarified.

Along with being consensually united and open to new elite groups, the elite in Denmark have also shown a higher propensity to include the offspring of non-elite families. Compared to other countries, access to the elite is more open than in other countries and has become even more so during the

twentieth century, thereby making it a potentially less exclusive, elite group (Christiansen and Togeby 2007). Furthermore, the elite are characterised by separate career paths to each elite sector, with little apparent importance given to an exclusive elite program of higher education. According to Michael Hartmann (2010), this has led to a weakened internal integration, and thus lesser concentration of power, in the elite circle. However, these findings explore the Danish elite according to potentially powerful groups defined a priori through the positional method (cf. Knoke 1993) rather than by analysing which groups are actually part of an elite group. This means that the historical specificities of the making of the Danish power elite described above are neglected in favour of an elite definition based upon the usual suspects: powerful societal sectors such as business, politics, state administration, organisations, law, science, culture and media. Rather than exploring the Danish power elite, previous studies have described groups that are regarded as powerful according to academic tradition. The power elite of the welfare state has escaped attention. But before we try to identify the Danish power elite, we consider the important theoretical discussion of the concept of the power elite and its relationship to the broader sociological framework.

Division and cohesion in the power elite

The notion of the power elite was vigorously contested in the 1950s (see e.g. Bell 1958; Dahl 1958), particularly the extent of power concentration within the elite group. The discussion between elitists and pluralists soon turned towards the theoretical definition of power (Bachrach and Baratz 1962; Dahl 1957; Lukes 1974). The elitists, joined by a new generation of Marxist scholars, turned their attention to the disproportionate influence and internal organisation of business (Domhoff 1978; Mintz and Schwartz 1985; Useem 1984; Zeitlin 1974). Neo-pluralists conceded that in some periods, business has a more privileged position to influence politics (Domhoff 2007). As such, the disagreement between elitists and pluralists has turned to question the very notion of power rather than whether or not some groups hold more power than others. In this context, the Millsian notion of the power elite becomes open to establishing the empirical boundary of the group that holds disproportionate power.

When describing the power elite, Mills (1956:385–6) focused on four aspects. First, the elite head the top institutional hierarchies. Second, the interlock of these ‘circles’ forms an ‘intricate set of overlapping cliques’ (Mills 1956:18). Third, the integration in these circles in turn creates a set of common values in these circles by ‘co-optation of social types’ (Mills 1956:281). Fourth, the common experience of heading up central institutions, everyday interaction and the shared values leads to a common moral view that in turn leads to some degree of coordination.

The power elite are thus composed of individuals leading large organisations that frequently interact with one another. This led Mills (1956:288–90) to picture the power elite consisting of:

1. 'The inner core [...] who interchange commanding roles at [the] top of one institutional order with those in another'
2. 'Men [...] not necessarily familiar with every major arena of power... who moves in and between perhaps two circles'
3. 'The outermost fringes of the power elite – which change more than the core – consist of "those who count" even though they may not be "in" on given decisions of consequence nor in their career move between hierarchies.'

'Each member...' of the group does not 'personally decide every decision that is to be ascribed to the power elite. Each member, in the decision that he does make, takes the others seriously into account'. This marks the difference from the 'middle levels of power' located outside the core of the elite circles, who may have influence on matters within their sector, but are not taken generally into account. Finally, the fragmented and passive 'mass society' are those entirely removed from the circles of power (Mills 1956:324).

As mentioned above, Mills identified the power elite primarily as leaders of large institutions. However, Mills is less clear on exactly how to determine which institutions to include. Instead we suggest that the power elite of different epochs and social structures can be analysed with the overlapping circles as a point of departure. This allows us to analyse power elites as a group and thereby draw the broader sociological framework. When seen through the structuralism and group theory of Georg Simmel, the power elite becomes a group that, when it includes new members one by one, maintains its overall group characteristics (cf. Vedres and Stark 2010). In turn, the social integration of these Simmelian cross-cutting social circles can be enhanced by secrecy (Mills 1956:294; Simmel 1950:361). Adding to this, Randall Collins' (Collins 2004:53ff) theory of interaction ritual chains emphasised how interaction – particularly physical co-presence – produces both solidarity and cohesion within the group, while also defining group boundaries. The group must interact continuously to uphold cohesion, values and moral (Collins 2004:32–49). Thus, the cohesive core group of the power elite can be traced through patterns of interaction.

These patterns of interaction also function to uphold power relations and status differences through chains of interdependence, according to Nobert Elias. In his study, described in his book, *Court Society*, Elias (1983) showed how courtiers must achieve or maintain sufficient status to be considered an insider. The successful courtier learns to navigate the social games of the court in part by sensing the status and interests of the other courtiers, a status defined primarily by proximity to the king, Louis XIV, in both a physical and a social sense. Likewise, Erving Goffman (1951:299) proposed that

membership in prestigious networks with connections to powerful people becomes a status resource, as a result of the scarcity of personal connections.

As in the court banquets described by Elias, power was defined relationally by Pierre Bourdieu. Through the notion of the field of power, Bourdieu (1996:265) showed that struggles between elite groups consist of determining the ‘exchange rate’ between forms of capital and establishing the ‘dominant principle of domination’. Following Bourdieu (1996:263, our emphasis) these struggles take place within:

[...] a complex universe of objective relations of interdependence (established in and through intersecting patterns of domination) among subfields that are both autonomous and bound together by the *organic solidarity* of a genuine division of the labor of domination.

In other words, the agents in the field of power have to take one another into account. While having an interest in promoting their own specific form of capital, the holders of dominant positions share common interests, needing other forms of capital in order to legitimise and reproduce dominant positions. As such, the field of power becomes both a source of power and a locus for the struggles over power.

The field of power is a *field of forces* structurally determined by the state of the relations of power among forms of power, or different forms of capital. It is also, and inseparably, a *field of power struggles* among the holders of different forms of power.

Bourdieu (1996:264, our emphasis)

When analysing the field of power, Bourdieu (Bourdieu 1996:270; see also Wacquant 2005:143) described subfields, each organised in homologous fashion to the general cleavages in the field of power. These subfields – the artistic, the scientific, the bureaucratic, the juridical and the economic fields – each have their own field-specific form of capital. Capital is ‘accumulated labor’ (Bourdieu 1986:241), but certain advantageous positions allow for the appropriation of the labour so that dominant positions may accumulate capital (Savage, Warde, and Devine 2005). The accumulation of different forms of capital, tied to specific subfields, follows the logic of accumulation of power within the major institutional hierarchies² described by Mills, but the field-analytic approach adds accumulation of power resources outside of the more bureaucratic organisations with formal leadership, such as science or the arts. Mills (1956:9) asserted that ‘only within [institutions] and

² As is the case with the institutional orders of Mills, Bourdieu regarded the particular form and conversion rates of capital as a product of historical struggles within the field of power rather than an intrinsic feature of society (Wacquant 1993), even if ‘strategies of reproduction’ (Bourdieu 1996:272ff) maintain a relatively stable configuration.

through them can power be more or less continuous and important?. However, the field-analytic approach of Bourdieu shows how fields are organised in a highly hierarchical way, even without a formal chain of command. Although institutional orders are always highly likely to take the form of fields, fields are not necessarily institutional orders. Extending the notion of institutional orders to include less formal hierarchies through the notion of fields extends the criteria of sector-inclusion into the core of the power elite. Rather than looking only at formal leaders, the question of inclusion in elite circles turns to whether or not the form of capital assessable by participating in the struggles within the field has value in the field of power. However, the accumulation of capital may also take place in a field with a high degree of autonomy. With this autonomy comes the risk of the field-specific form of capital losing transferable value. The inclusion of a field in the field of power rests upon the fact that this form of capital holds some sort of exchange value in that field. Or, as put by Shamus Khan (2012:362), ‘elites as those who have vastly disproportionate control over or access to a resource... [t]he resource must have transferable value’.

But how does this conversion of capital between fields or institutional orders take place? To answer this Mills (1956:11) turned to the relations between the elites. There is ‘a qualitative split’ based on ‘a set of overlapping crowds and intricately connected “cliques”... [a] kind of mutual attraction among those who “sit on the same terrace”’. Mills (1956:19) added:

If these hierarchies are scattered and disjointed, then their respective elites tend to be scattered and disjointed; if they have many interconnections and points of coinciding interests, then their elites tend to form a coherent kind of grouping.

Following the group sociology of Simmel and Collins, we may add that relations based on interaction add to the cohesion of the power elite but also create internal trust, or potential for organic solidarity among holders of different forms of capital or power resources.

Even if the holders of these forms of power are divided by their divergent interests as holders of different forms of capital, they are still related through their mutual interdependence, because they engage with – and thus show interest in and symbolic recognition of – the forms of capital held by one another. They integrate socially to form a consensually united elite (cf. Higley et al. 1991), accepting the overall legitimacy of the positions of the other elite sectors and their forms of capital, while still attempting to promote their specific base of power. If new forms of capital or institutional orders arise, these will be co-opted into the social spheres of the power elite, while continually struggling to determine the exchange value of their form of capital. Alternatively, they will remain outside the elite networks as counter-elites seeking to overthrow the current elite or be condemned to the middle levels of power, to be taken into account by the power elite only on specific occasions.

If the form of capital of an institution has transferable value, the individuals sitting at the top of these institutions will tend to interact with each other. If the transfer of forms of capital has stabilised, the interaction will tend to have been formalised. At the core of elite networks, we find representatives of the key institutional orders. In short, you are powerful if others with power think you are. You hold power if you know others who hold power. Although this may appear to be a mere tautology, using social network analysis, we may define the power elite as the core of the formalised elite network. This enables us to identify the institutional orders that are part of the core of the elite network. Of course, this does not mean that the network centrality associated with being part of the core is the only source of power. Network centrality is only one form of power, but one that is strongly correlated to other forms of power. Network centrality can be seen as a proxy for the social capital of an individual, which ‘depends on the size of the network connections he can effectively mobilize and the volume of capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected’ (Bourdieu 1986:246). However, if one is excluded from others in the network, the ability to use one’s power resources across institutions is seriously hampered by either isolation or dependency on others to create alliances. Before we use the connections between institutional orders and their presence in the power elite to assess their prominence in Danish society, we look at the method used to identify the power elite in Denmark.

Identifying power elites through social network analysis

In order to define the key institutional orders in the power elite empirically, we use a method developed to solve the boundary specification problem (for a further elaboration of the method and data used, see Ellersgaard and Larsen 2014). This method is key to empirical studies based upon a relational framework (cf. Emirbayer 1997; Laumann, Marsden, and Prensky 1983). All potentially powerful or symbolically integrative affiliation networks within Denmark were recorded if a complete list of participants was available. The affiliation network was collected through various sources (see Table 1). The affiliations derived from inclusive lists of state offices, non-government organisations (NGOs) with a hearing right, the top 1,000 corporations listed by turnover, all registered foundations and guests lists from events, primarily hosted by the royal family. All affiliations, such as committees, boards and advisory boards, were collected from each of the original 6,053 organisations. In effect, each organisation formed the starting point of a small snowball collection of affiliations. This procedure was guided by an ‘inclusion principle’: if any affiliation could be considered to be nationally important in any sense, it was included. The majority of the included affiliations are the boards of large corporations, political organisations, foundations or state agencies.

In total, 5,332 affiliation networks were recorded for the year 2012, containing 62,481 positions held by 37,750 different individuals. Each recurring name was tested individually for the validity of the overlap. If there was doubt as to whether two with the same name referred to the same person, they were treated as two separate individuals. By using the inclusion principle we ensured that the data comprehensively covered the official networks of every possibly important institutional order, from clergy, media and culture, to business, law and sport, and their potential ties.

TABLE 1: AFFILIATION NETWORKS INCLUDED

	From original sources	Excluded*	Added in snowball sample†	Final number of affiliation networks	No. of relations
State ¹	2,328	1,780	327	875	10,230
Parliament ¹	153	101	31	83	970
NGO ¹	749	144	922	1,527	16,436
Corporations ²	1,136	34	40	1,142	7,476
Foundations ²	1,380	18	83	1,445	8,181
VL Networks ³	117	3	0	114	3,845
Commissions ⁴	116	44	0	72	1,121
Events ⁵	74	0	0	74	14,582
Total	6,053	2,124	1,403	5,332	62,841

¹ Source: Danish Public Administration Database (www.foa.dk)

² Source: The list of largest corporations according to turnover and list of all foundations in the Danish Central Business Register (obtained through www.biq.dk)

³ Source: Homepage of VL networks (www.vl.dk)

⁴ Source: Registration of political commissions from 2005-11 made by Danish weekly newsletter A4.

⁵ Sources: Webpage of Danish Royal Family (www.kongehuset.dk) and private archive of journalist.

*Affiliation networks were excluded if no board of extra-organisational members existed, no information was available on the board either online or through personal contact, the board members were included from other sources as well, or the board entirely overlapped with another board within the same organisation.

†This includes both subcommittees within the organisations on the original list and the 142 networks obtained through snowballing the affiliations of prominent actors.

The comprehensive nature of the data means that the affiliations vary considerably in size and nature. To account for this, the weighting of tie strength was gradually reduced after the number of affiliation members began to rise above 14^{3 4}. As the number of members increases, the potential for interaction

³ The weighting of ties was applied as follows: Each affiliation is subject to a weight, ω_{σ} , of decreasing tie strength:

$$\omega_{\sigma} = \sqrt{\frac{\sigma}{n_a}} \text{ if } \sigma < n_a \quad (1)$$

drops and the larger gatherings tend to meet less frequently. For gatherings of about 30 (typical for the more informal networks) participants' tie strength was two-thirds the strength of boards with 14 or fewer members, whereas for more ceremonial gatherings with around 100 participants, tie strength reduced to one-third. To further account for the heterogeneity of affiliations, affiliations with almost identical members were removed if they were in fact part of the same organisation. If two affiliations were embedded in each other, only the strongest tie between a pair of individuals was retained. Following the same logic, events (which, unlike boards meetings, only gather the same individuals once) with largely the same set of participants were merged into one affiliation. Individuals who had participated in only some of the events had their tie strength to other participants reduced according to the proportion of the merged events they participated in.

$$\omega_e = 1 \text{ otherwise.} \quad (2)$$

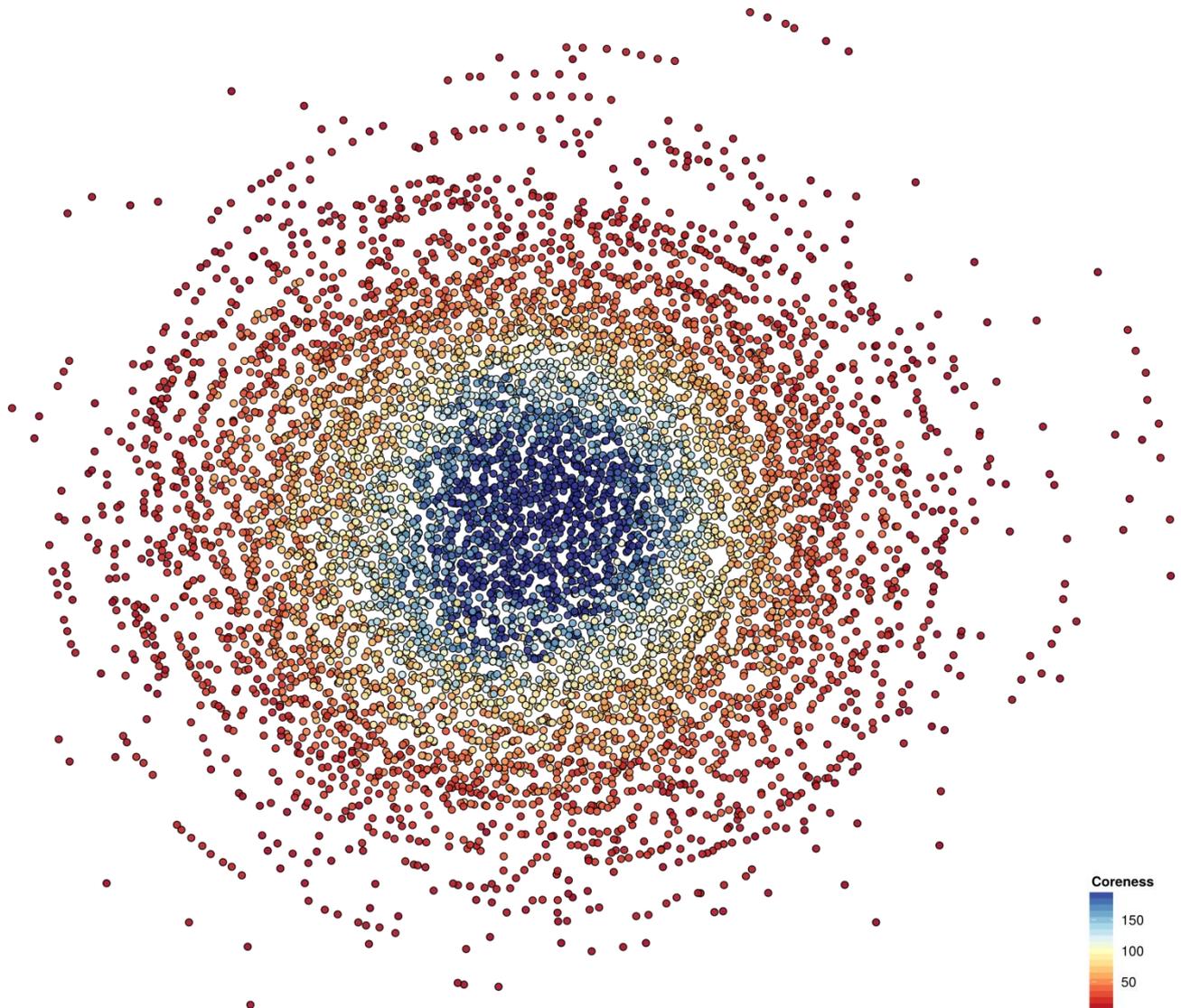
where n_a is the number of members of each affiliation and σ is a constant referring to the number of individuals that causes the network participation of each member to drop.

⁴ Furthermore, several individuals have multiple ties. Meeting in more than one setting of course creates potential for a stronger tie, but as the number of meetings increase this each new tie adds less and less. Hence, after applying the weight based on affiliation size mentioned above, we added another weight using the sum of all ties between all pairs of individuals, $\sum e_{ij}$.

$$\omega_{e_{ij}} = 1 + \ln(\sum e_{ij}) \text{ if } \sum e_{ij} < 1 \quad (3)$$

$$\omega_{e_{ij}} = \sum e_{ij} \text{ otherwise.} \quad (4)$$

FIGURE 1: THE NETWORK OF THE 7,249 LINKERS IN THE DANISH ELITE NETWORK, BY CORENESS SCORE



The core group of the power elite was identified in a three-step procedure. First, all individuals without more than one weighted tie were removed, reducing the population to 7,400 individuals. Of these, 151 were not connected to the largest component of 7,249 *linkers*. In this network of linkers we identified a k-core (Seidman 1983) using a modification inspired by the w -threshold of magnitude of network ties developed by Doreian and Woodard (1994) to allow use of the extended network: everyone within a reach of 2.1. A reach of 2.1 roughly corresponds to a pair of individuals being tied either: through one intermediary, if both affiliations tying them to the intermediary have a size of 14 members or fewer; or

directly in an affiliation with 50 or fewer members⁵. A group of 423 individuals⁶ form part of the most cohesive core, having a coreness score of 199. No individuals can be removed from this group without lowering the minimum number of 199 individuals within the reach of the least connected member of the core of the elite network.

We used biographical data to analyse the social character of the core. The biographical data on the 423 members were collected using a variety of sources, primarily *Kraks Blå Bog*, the Danish equivalent of *Who's Who*, and information from websites of the organisations to which elite members were affiliated, LinkedIn profiles and the Danish Corporate Register (CVR.dk). Although data from these sources were mostly self-reported, the information – particularly on parental occupation – was not always entirely valid for the theoretical interest of identifying the class background of the elite. As well, the highest prevalence of missing data on public profile occurred among the least prestigious elite individuals. This may lead to an image of the elite slightly tilted towards the established elite.

The primary occupation of the 423 members of the power elite core was recorded and tied to eight different sectors: business, organisations, politics, state administration, law, science and education, media, culture. Some of these were divided further into subsectors based on characteristics of the included institutions; for example, splitting organisations into four groups: unions, business associations, interest groups related to farming and interest groups representing consumers (see Table 2). These constitute the empirical identification of the key institutional orders. Some members of the elite did not have one primary position but were instead employed as non-executive directors on several boards. They were *multipositionals*, moving from one institutional order to another. In this instance, they were coded according to their last full-time employer. After identifying and coding the institutional orders of the members of the power elite, all 5,332 affiliations were then tagged to record whether or not they belonged to any of these institutional orders, enabling an analysis of subnetworks such as state, corporations, unions or media (see Figure 2). This classification of networks was also used in the creation of network profiles of key individuals (see Figure 8), tracing the origin of the network ties of the most central individuals, other holders of key positions and notable absentees.

⁵ A third way to move within a reach of 2.1 of one another is if one or both of the individuals share several affiliation memberships with the intermediary between them, potentially reducing the sociometric between them and the intermediary below 1.

⁶ Furthermore, 21 individuals have a coreness score of 199, but these are secondary actors (cf. Faust 1997), having only affiliations that are a subsample of another individual's affiliations. Of these, 20 were removed from the identified power elite and added to the second layer of elite integration, the 'upper levels of power', because they potentially act only as liaisons and do not add new ties to the network of the elite. However, the Prince Consort was retained in the core elite group as he alone is included of 37 affiliations and events, four times the number of affiliation memberships than any other secondary actor.

The group of *notable absentees* was identified from an elite population gathered through the positional method. This population is composed of holders of key political, organisational and state positions, as well as management in the largest corporations and a list of the richest Danes⁷. These lack the network centrality to be part of the core group, but hold positions usually associated with power or influence. Members of this group thus worked throughout the analysis as cases to help understand the dynamics of inclusion and exclusion in the core of the elite network. Key individuals from each sector identified with the positional method, but not among those with the highest network centralities are also explored further.

In the following analysis we will first describe the overall character of the network and the particular role the power elite plays in the network. For this we compare odds ratios between memberships in different parts of the network. Then we look into the composition of the power elite and from that discuss the key institutional orders in Danish society. Next, we move on to individual cases and discuss notable absentees, after which we look at the social character of the elite.

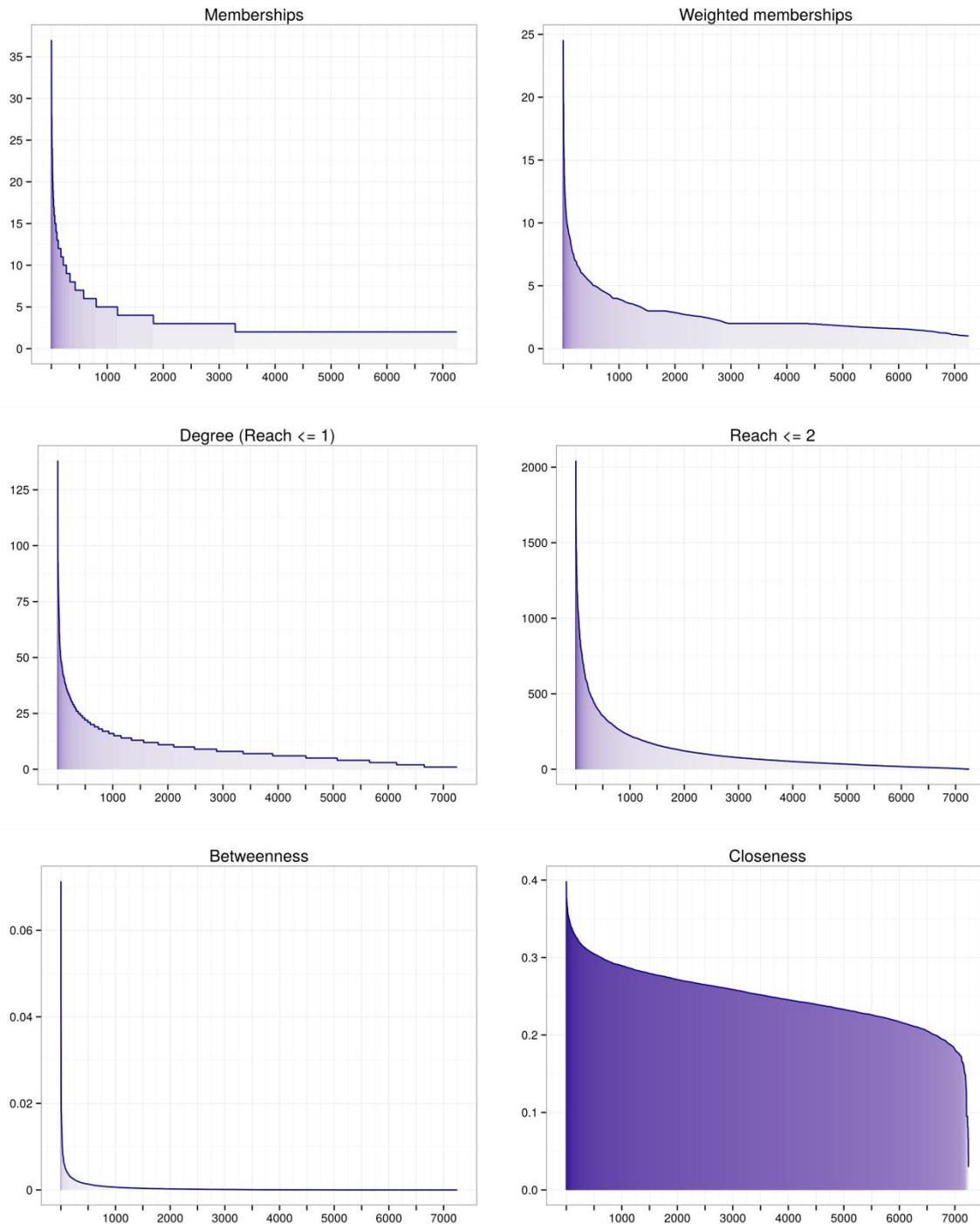
The network of the power elite

When looking at the elite network as a whole, the concentration of powerful positions in a perceived egalitarian country such as Denmark springs to mind. As mentioned above, there are 62,481 positions held by 37,750 different individuals in the dataset, meaning that the adult population has less than a 0.9% chance of being part of the elite network. In other words, members of the elite network constitute the network resource equivalent of the one per cent popularised by Thomas Piketty (2014). The general population have only a 0.016% chance of being among the linkers, those with two affiliations. Fewer than one in 10,000 are part of the core group, the power elite. However, even within this most central group there is an extremely unequal distribution of network resources, as seen in Figure 2. The number of affiliation memberships varies from eight to 37 for the 427 linkers with the most memberships, whereas the remaining 6,821 linkers have between two and seven affiliation memberships. Other measures of centrality confirm this trend of a very small group of around 500 individuals (even less when looking at the distribution of betweenness centrality) actually connecting the various parts of this network. The very small group characterized by high scores in betweenness

⁷ The list of notable absentees was supplemented by a couple of interesting cases, the world-famous filmmaker Lars Von Trier and lawyer Knud Foldshack, who with 18 affiliation memberships ranked 8 with regard to weighted number of memberships in the entire network, and yet is not part of the power elite.

centrality suggests that position of brokers (cf. Burt 2004), or perhaps, rather, as trusted intermediaries, who is well integrated in both groups (cf. Vedres and Stark 2010), is very exclusive.

FIGURE 2: DISTRIBUTION OF CENTRALITY IN THE NETWORK OF LINKERS



Distribution of centrality measures in the network of 7,249 linkers. Note that the 30,501 who are not linkers would lead to graphs with an even clearer power law distribution.

The concentration of network centrality is also found when looking at the networks of subsectors. When odds ratios of holding a central position in subsector networks are compared, individuals holding positions in the central affiliations within the network of each sector are much more likely to hold central positions in other networks as well (see Figure 3). In particular, holders of prominent positions in state, science and education, corporations, business organisations, interest groups and unions are much more likely to be members of the power elite, with odds ratios ranging from 17.1 to 33.8. The prominent participants of sector networks in law, culture, politics and media appear to have less, if still substantial, overlap with the power elite, with odds ratios between 5.3 and 13.7.

Not all holders of prominent positions in subsectors hold prominent positions in other subsectors because of the particular logics of some of these sectors, such as the exclusion of prominent union members holding positions in prominent business associations. Likewise, the networks of the political and juridical sectors are less open to other sectors. The associations between prominent positions in various sectors also reveal the overlap of prominence, particularly for three networks. All of the following have odds ratios above 5. First, the holders of prominent positions in corporations are much more likely to sit on prominent boards in networks of science and education, interest groups, culture and the state administration. Secondly, prominent members in the network of business associations are tied to science and education, state administration and perhaps not surprisingly, corporations. Thirdly, prominent positions in networks of unions are open for participation in other prominent networks, particularly law and state administration. Fourth, the association between the official power groups of Denmark is seen in the overlap between prominent royal and political positions with an odds ratio of 12. Note that these overlaps of prominence mean not only that prominent members meet on neutral ground in social clubs, which operate like networks, but also that prominent members from the other sectoral networks are invited into the most central boards within other sectors. In other words, if the dominant of one sector are invited to participate in another sector they are able to convert their capital in the most exclusive circles of another sector.

Figure 3 shows that the elite are massively overrepresented in all other sectors, with odds ratios up to 33. The elite as a group are strongly connected across all sectors and have a very strong preference for the most central affiliations within each sector. It seems the network has a structure with fairly unconnected sectors at a low level of centrality, with the vast majority of the affiliation members having only 1 position. But the most central affiliations in each sector are very likely to connect into the power elite and thereby connect with the rest of the network. The elite function as brokers between different

TABLE 2: SECTOR AFFILIATION¹ OF THE 423 IN THE CORE OF THE NETWORK

Sector	Subsector	N	Percent
<i>Business</i>		<i>184</i>	<i>44%</i>
	Top 200 ²	74	18%
	Multiposition ³	55	13%
	Investment and Pensions ⁴	19	5%
	Medium-small ⁵	36	9%
<i>Interest groups</i>		<i>100</i>	<i>24%</i>
	Employers and Business Associations	37	9%
	Unions	49	13%
	Farming organisations ⁶	11	3%
	Consumers	3	1%
<i>State and Politics</i>		<i>75</i>	<i>18%</i>
	Politics	34	8%
	Public officials	30	7%
	Royal court ⁷	11	3%
<i>Science and Education</i>		<i>52</i>	<i>12%</i>
	University principals	10	2%
	Educational institution principals	8	2%
	Economists and political scientists ⁸	15	4%
	Other scientists ⁸	19	5%
<i>Culture and Law</i>		<i>12</i>	<i>3%</i>
	Culture and charities ⁹	4	1%
	Lawyers	8	2%
Entire core of the elite network		<i>423</i>	<i>423</i>
			<i>100%</i>
			<i>100%</i>

¹: Sector affiliation is identified as the sector of the primary occupation, or latest former occupation of the each elite individual.

²: Chief executives in the 200 largest Danish corporations based on turnover. Of the 74, 46 are Chief Executive Officers.

³: Multiposition denotes businessmen now working as non-executive directors or board members in the corporate sector, but who may also have – and indeed usually do have – several board positions outside business in political committees, state institutions or charities.

⁴: Includes leaders of pension funds, hedge funds and investors of seed capital.

⁵: Chief Executive Officers of firms not in the top 200 according to turnover and not in Investment and Pensions. Several of these are also owners of their corporation and many have key elected non–full-time positions in Business Associations as well.

⁶: Includes farmers and landed aristocracy with only elected positions in the farming organisations.

⁷: Includes both the royal family and key employees of the court.

⁸: All are full professor or the equivalent on either a university or a key research institution.

⁹: Includes both leaders of cultural institutions, an art critic and two large philanthropists having inherited their fortune.

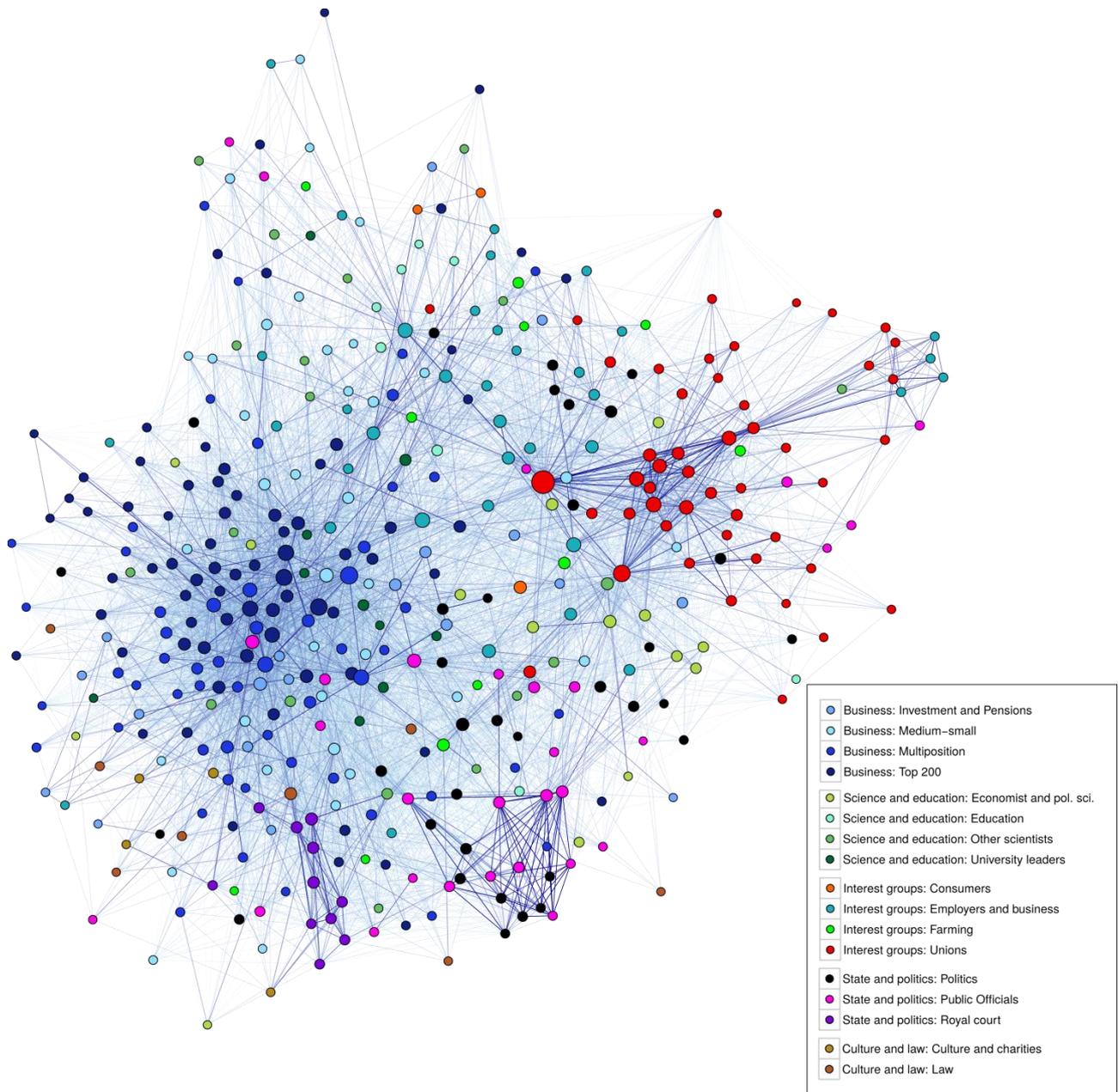
When looking at the composition of the power elite, one sector dominates (see Table 2). Of the members of the power elite, 44% have primary employment in the corporate sector. If the 9% 37 employed by business associations are added to the corporate sector they compose just over half of the power elite. But all actors of the collective bargaining agreements of the Danish labour market are present in the power elite, as 13% are union representatives. Furthermore, power elite members employed in state administration and politics, or in science and education, each compose between 18% and 12% of the power elite. Economists make up a substantial share of the scientist elite members. Economists are connected into the official organs that advise and regulate the labour market and the economy and therefore hold a strong position. On the other hand, leaders from social movements, such as the women's movement or the environmental movement, are absent, even though several had career trajectories through these movements. But the farmers' movement has a presence in the power elite. Culture and media are also sparingly represented. The elite are predominantly derived from the four core institutions that make up the Danish labour market system: the state, unions, employers' organisations and corporations. But even with this dominance they still have strong ties into the top level of the other sectors, as can be seen in Figure 3.

In spite of the overlap of networks between prominent members, some clustering tendencies of institutional orders in the network of the power elite can be seen in Figure 4. In particular, unions appear to be centred in the upper right hand corner, whereas business is located in the bottom left. Furthermore, the network of the royal family – all dark purple – form a clique near business in the bottom of Figure 4, whereas representatives of government and senior civil servants – in black and light purple – are located as another tightly knit clique at the right. If the positions of each institutional order are analysed separately, as shown in Figure 5, the role of business associations as intermediaries is generally located between business and unions. Other intermediaries appear to be scientists and politicians.

The clustering tendencies should not, however, be interpreted as cleavages within the network. When analysing the ties between overall institutional orders, and the number of internal ties, in a reduced graph (see Figure 6), it is clear that business in particular, of course because of its relative strength in size, has strong ties to all other institutional orders. Thus 14.5% of all ties that cross the institutional orders in the network go from business to science and education, 16.7% to state and politics, 11.9% to business associations, 3.9% to culture and law, but also 6.0% directly to union representatives. Relative to their size, unions also have strong ties to business associations while also being the institutional order

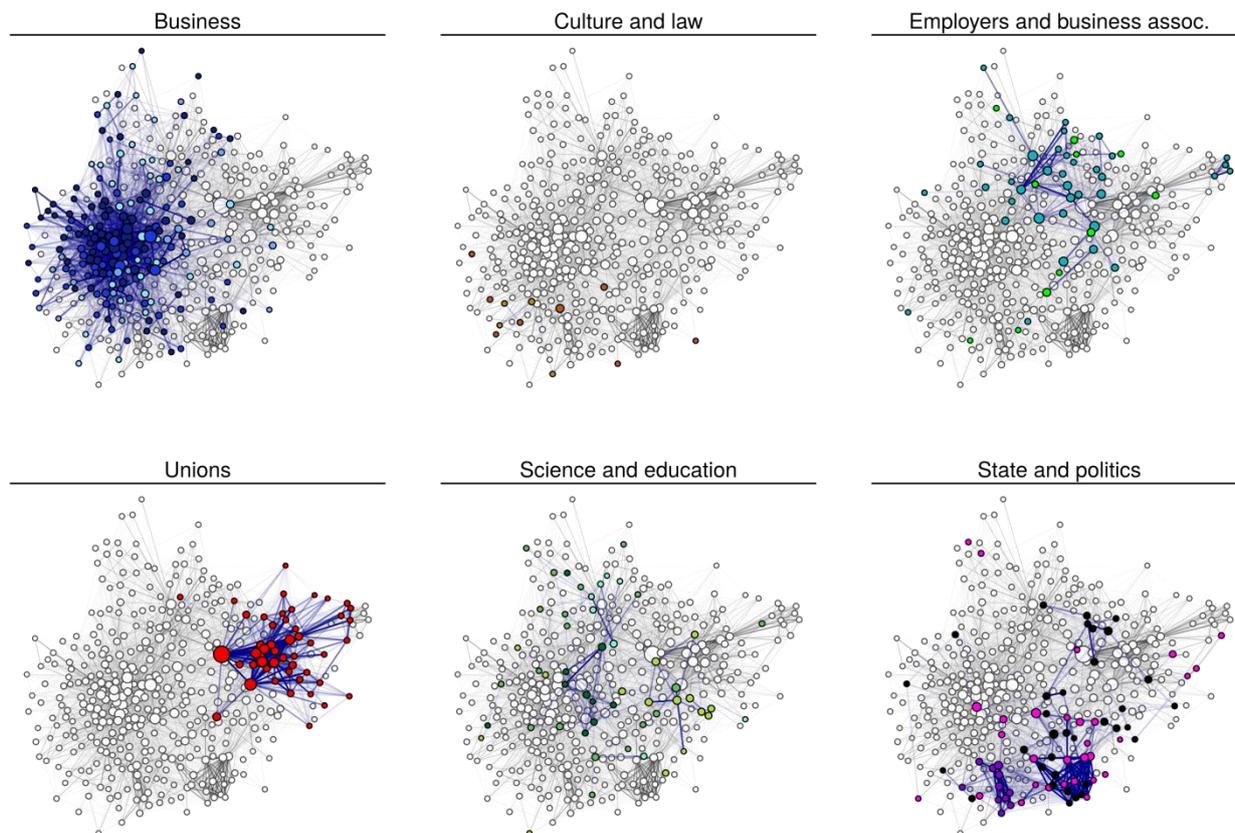
with the highest prevalence of internal ties. Rather than being a fragmented elite network, most institutional orders are strongly tied with the corporate sector at centre stage.

FIGURE 4: THE NETWORK IN THE POWER ELITE



Line intensity equals tie strength. Icon size equals their degree.

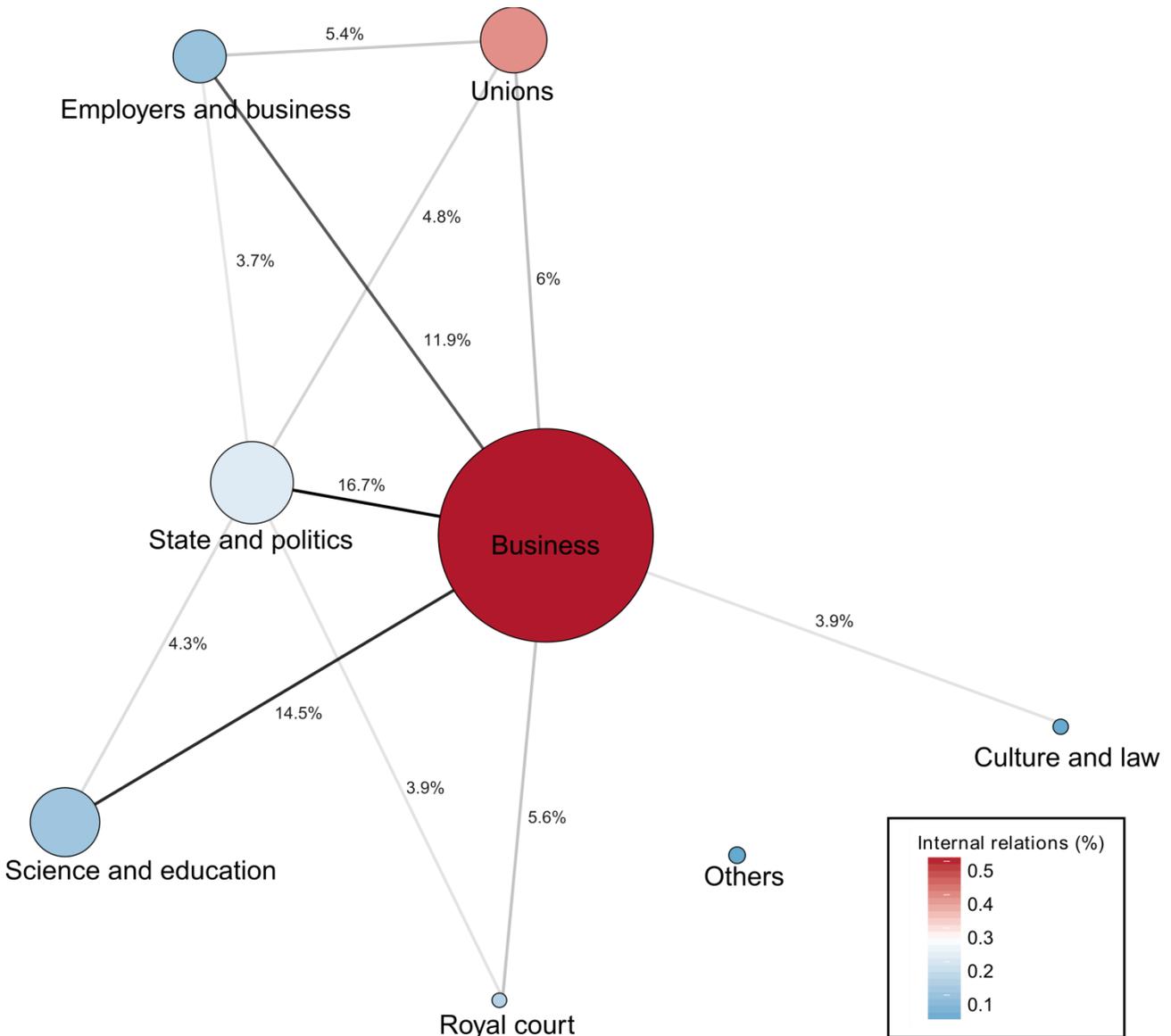
FIGURE 5: THE NETWORK OF SECTOR MEMBERS



Line intensity equals tie strength. Icon size equals their degree.

In the network of the power elite, it is clear that some institutional orders fraternise with others more frequently. However, unlike the results of the Swedish Power Study (Statens Offentliga Utredningar 1990), there are no clear sign of two rival groups competing for power, nor are there signs of the highly functionally differentiated pluralist elite described in the Danish Power Study (Christiansen and Tøgeby 2007). When looking at the members of the power elite, they include the majority of powerful individuals identified through a positional method, such as the Prime Minister, the Queen, top senior civil servants, leaders of the largest unions, management of the most important corporations, university principals and so on.

FIGURE 6: A REDUCED GRAPH OF NETWORK OF SECTOR EXCHANGES IN THE POWER ELITE



A reduced graph of the network of the power elite. Icon size denotes the number of individuals in each sector. Tie intensity and numbers are the share of the total amount of inter-sectoral ties in each tie. Ties containing below-average proportions have been removed. Color indicates the proportion of ties of sector members to members of the same sector. Note that calculations do not take sector size into account, as it is more informative to know the probability of, for example, businessman having ties to other businessmen, rather than that probability relative to the probability of other groups.

The key institutional orders and the division of labour of domination

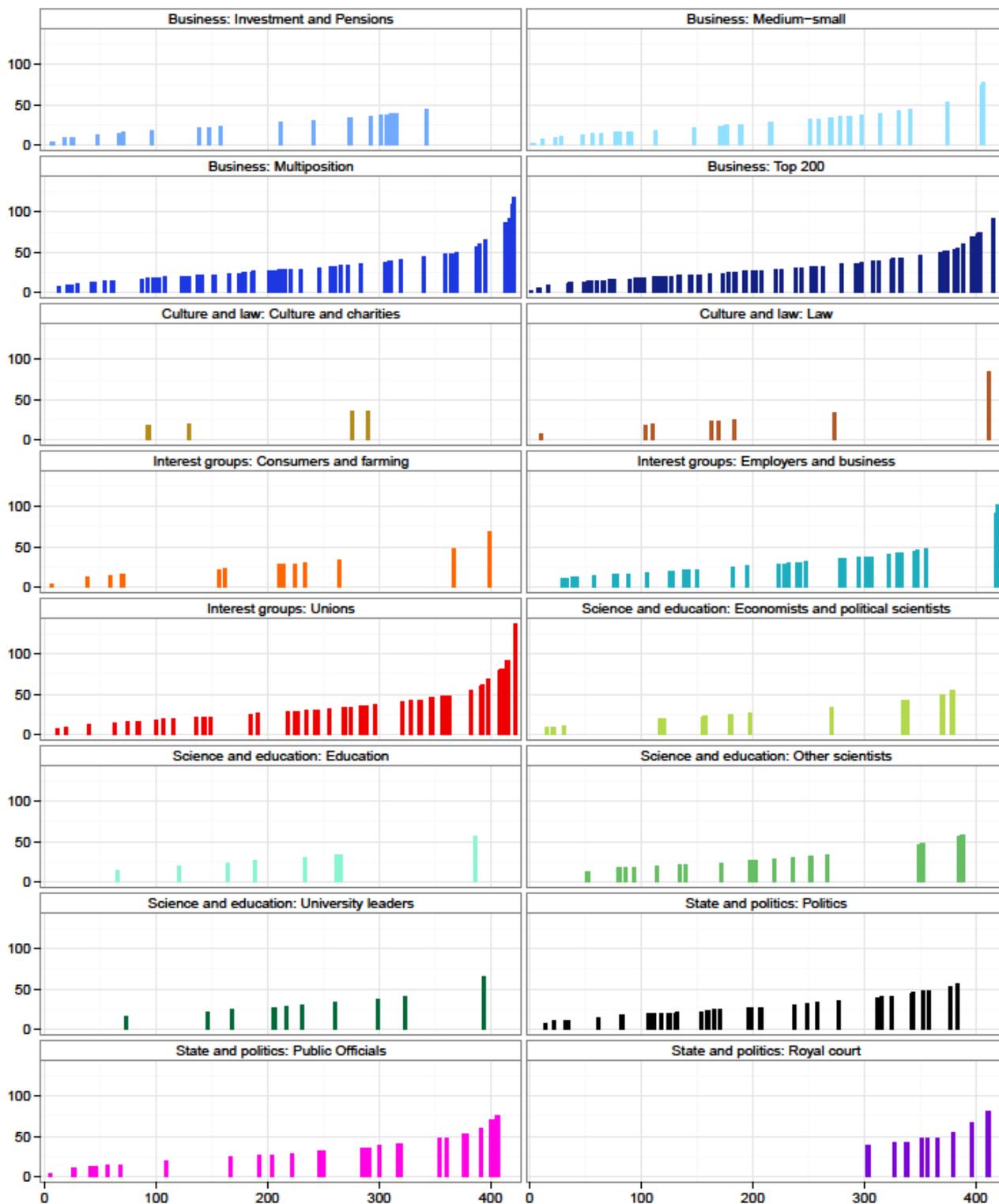
If we look at the organisations employing the elite members – the principal, but not the only, basis of the individuals’ power according to Mills (1956:9) – we get a good grasp of the interests that are being

promoted in the networks of the power elite. Although some individuals may become part of the core of the elite network by virtue of their wealth, fame, family or friendship ties, the following analysis will show that most of these people are also leaders or play key roles in major organisations. But which organisations then have their leaders well-positioned with regard to network centrality?

Within the pillar of business, the largest organisations dominate. Of the elite individuals in the 200 largest Danish corporations (by turnover), 74 are executives, 39 of the 55 multipositionals have a board membership, and a further four have formerly held a management or board position. Adding to this, the multipositionals and top 200 executives are more often among the most central in the network of the power elite as measured by reach (see Figure 7). If executives from smaller businesses are part of the elite, they almost always also hold secondary positions in business associations. Smaller businesses have difficulty getting enough contacts and positions for their directors on their own and have to rely on the business associations. The three most central members from the business associations all represent the Confederation of Danish Industry. It is important to note that the votes of the member corporations in the two major business associations are proportionate to their total wages. The political strategy of these organisations are therefore often in line with the interests of the largest corporations. It appears that big business represent the corporate sector politically, as described by Michael Useem (1984), and dominate challengers politically, as suggested by Niel Fligstein (1996).

However, it is not just the size of the corporation that matters in terms of network centrality. Whereas owners, board members and CEOs of the largest Danish corporations are placed at the very top of the network as shown in Table 3 (e.g. Jørgen Mads Clausen, chairman, former CEO and owner of industrial firm Danfoss; CEO Thoman Hofmann-Bang of NKT, board member of security firm Falck, insurance company Codan, state-controlled DONG energy; industrial producers William Demant and Georg Jensen, Lars Nørby Johansen), others of equal fortune or firm size are excluded. Only 20% of the 20 wealthiest Danish families actually form part of the core. A major line of division with regard to network centrality appears to be the classic differences in status between the well-established bourgeoisie and the nouveau-riches (cf. Bourdieu 1996:181). This is seen in the case of notable absentee, the extremely rich owner of the commercial chain Jysk, Lars Kristinus Larsen, who holds a position only within his own corporation (see Figure 8 and Table 4). However, even among the families with old money, to achieve a sufficient amount of network centrality one must have taken part in the management of the corporation, as seen by the fact that Ane Uggla, the heir of and chairman of the foundation controlling by far the largest corporation in Denmark, A.P. Møller – Mærsk, is not part of the core of the elite. However, seven executive officers from Mærsk are among the 423 power elite

FIGURE 7: REACH BY INSTITUTIONAL ORDERS



Members of each sector according to their position in the distribution of reach within the network of the power elite.

members, along with a further three employed by Mærsk-owned or controlled corporation, ensuring that the interests of the corporation are heard across the power elite network. In short, the internal hierarchies of the economic field in Denmark favouring well-established owners and old industrial corporations (cf. Ellersgaard, Larsen, and Munk 2013; Larsen and Ellersgaard 2012) are also seen in the network dynamics of the corporate institutional order within the network of the power elite.

An interesting feature of the network is that several of the most central individuals – and in fact the most central individual in the network, President of the Union of Metalworkers, Thorkild E. Jensen – are union members (see Table 3). As seen in Figures 4, 5 and 6, union representatives in the network of the power elite are more tightly integrated than others. Furthermore, it appears that a few of these have a very high number of external contacts, with Thorkild E. Jensen (with the largest icon in Figures 4 and 5) spearheading the union block into the elite network. But why is Thorkild E. Jensen, then president of a union with around 115,000 members and thus only the fourth largest working class union, so central? Much of the answer probably lies in the position of the metalworkers in the collective bargaining system. As holder of the majority code in the confederation of industrial workers, and along with the Confederation of Danish Industry, the Union of Metalworkers, as the leaders of The Central Organisation of Industrial Employees in Denmark, negotiate the standard agreement, an agreement that all other collective bargaining agreements are not allowed to exceed (Ibsen 2013:113). In short, what corporate negotiators can make Thorkild E. Jensen agree upon, they can impose on the rest of the labour force.

By contrast, the leader of the third largest working class union (the Union of Public Sector Workers [FOA], representing approximately 190,000 unskilled and semi-skilled public sector manual workers), is notable absentee Dennis Kristensen, who is not even part of the power elite. Kristensen is infamous for his public popularity, media profile and tendency to report from closed meetings. However, Kristensen's charismatic challenge to power elite consensus coincides with a very different network profile than that of Thorkild E. Jensen (see Figure 8). Whereas Jensen's 28 memberships span prominent corporate boards, science and education, law, media, politics, and state administration, Kristensen's six memberships are in less prominent corporations, a single prominent state committee and unions. It is not enough to head up a powerful organisation and have strong potential for mobilisation to become member of the power elite. It is also necessary to accept the unwritten rules of negotiations and the legitimacy of the other power elite members. In short, one must participate in the division of labour of domination.

TABLE 3: DESCRIPTION AND CENTRALITY SCORE OF MOST CENTRAL INDIVIDUALS AND OTHER HOLDERS OF KEY POSITIONS

Name	Position	Gender	Member-ships	Degree	Closeness rank	Betweenness rank	Core-ness	Reach	Reach rank
TOP 10 (REACH)									
Thorkild Engell Jensen	Leader, Union of Metalworkers	M	29	137	1	1	199	2042	1
Lars Nørby Johansen	Multipositional, Business	M	26	118	2	5	199	1885	2
Bente Sorgenfrey	Leader, Union of Public Sector Employees (FTF)	F	23	79	3	4	199	1699	3
Lars B. Goldschmidt	Director, Confederation of Danish Industry	M	24	102	4	3	199	1682	4
Jørgen Mads Clausen	Owner, Top 100 Corporation (Danfoss)	M	24	92	7	13	199	1606	5
Sten Scheibye	Multipositional, Business	M	24	110	6	6	199	1601	6
Thomas Hofman-Bang	CEO, Top 100 corporation (NKT)	M	16	74	5	20	199	1537	7
Peter Schütze	Multipositional, Business	M	22	87	8	9	199	1528	8
Kim Simonsen	Leader, Union of White Collar Workers (HK)	M	20	90	10	34	199	1475	9
Harald Børsting	Leader, Confederation of Danish Unions (LO)	M	17	81	11	125	199	1452	10
OTHER HOLDERS OF KEY POSITIONS IN THE POWER ELITE									
Jens Oddershede	Principal, University (SDU)	M	16	66	15	11	199	1338	16
Henrik Wedell-Wedellsborg	Lawyer	M	23	85	33	8	199	1160	29
Peter Gæmelke	Former Chairman of Danish Agriculture & Food Council	M	15	48	71	21	199	949	62
Dronning Margrethe	Queen	F	34	47	95	87	199	808	93
David Hellemann	Permanent Secretary, Treasury	M	15	53	104	176	199	786	103
Merete Helene Eldrup	CEO, TV2 Media	F	10	34	213	286	199	590	188
Helle Thorning-Schmidt	Prime Minister	F	20	45	192	175	199	575	207
Poul Erik Tøjner	Director, Louisiana Art Museum	M	7	20	301	526	199	509	254

TABLE 4: DESCRIPTION AND CENTRALITY SCORE OF NOTABLE ABSENTEES

Name	Position	Gender	Member-ships	Degree	Closeness rank	Between-ness rank	Core-ness	Reach	Reach rank
NOTABLE ABSENTEES									
Peter Skov-Jakobsen	Bishop	M	16	38	437	73	193	467	305
Morten Bødskov	Secretary of Justice	M	13	40	376	2303	198	446	327
Ingrid Stage	Leader, Union of Academics in Humanities (DM)	F	13	30	312	83	198	394	410
Knud Foldschack	Lawyer	M	18	31	557	148	168	393	414
Dennis D. Kristensen	Leader, Union of Public Sector Workers (FOA)	M	6	30	547	399	198	390	421
Børge Dahl	President of the Supreme Court	M	13	15	745	422	173	233	938
Maria Rørbye Rønn	CEO, DR Media	F	5	5	805	2104	179	211	1066
Ane Mærsk Mc-Kinney Uggla	Heir to Corporation (A.P. Møller – Mærsk)	F	6	10	1107	3526	179	171	1400
Eelco van Heel	CEO, Top 100 Corporation (Rockwool)	M	3	7	1470	6585	158	175	1366
Pia Merete Kjærsgaard	Chairman, Danish Peoples Party	F	9	14	2476	3470	99	105	2308
Jesper Lien	CEO, Top 100 Corporation (Coop)	M	1	-	-	-	-	-	-
Lars Kristinus Larsen	Owner, Top 100 Corporation (Jysk)	M	1	-	-	-	-	-	-
Ole Wæver	Professor, Political Science	M	1	-	-	-	-	-	-
Lars Von Trier	Film Director	M	0	-	-	-	-	-	-

Among politicians there is a clear divide between members of parliament and those politicians with current or former positions in government or local administrations. The most central politician is actually capital Mayor Frank Jensen of the Social Democrats. In fact, 13 out of 34 politicians are from local or regional administration. Not all government secretaries are part of the power elite. However, the ministries responsible for the economy, labour market, education and foreign relations are all included, as are the permanent secretaries of these ministries. The Prime Minister, Helle Thorning-Schmidt, who spends much of her time outside the networks of the power elite in Denmark working on foreign relations, is tellingly ranked only 207 for reach in the network of linkers. She is still part of the elite, but is placed at the periphery along with the rest of the government (see Figure 4). Again, the lower network centrality of the Prime Minister does not necessarily mean that she is less powerful than the mayor of Copenhagen, but her political power appears to be tied less formally to other forms of power than that of the mayor, limiting her venues. Another member of Cabinet, Morten Bødskov, the Secretary of Justice – historically a prestigious position, but located outside the regulation of the labour market due to the strength of the collective bargaining system – is one of those who just misses out on being part of the power elite. The boundaries of the outermost fringes of the power elite, following Mills (1956:290) are less stable than the core, meaning Bødskov could just as easily have been at the periphery of the power elite network as outside it. However, several members of government (e.g. the Secretary of Health, Astrid Kragh, ranked 703 according to reach) are quite far from joining the circles of the power elite.

The most telling case of the difficulties of transferring political capital in network centrality in the power elite is seen in the peripheral position of the leader of the third largest political party, the populist Danish People's Party, Pia Kjaersgaard. Kjaersgaard is ranked only 2,307 for reach in the network of linkers and only holds positions in parliament and at official royal events. This also shows that the restraint of certain fields (e.g. the political field), where the risk of being regarded as guilty by association is bigger, may change the willingness to participate in the more formalised parts of elite network studied here. The relative weakness of the institutional hierarchy of politics could be explained by politicians refraining from participating because it would put them at risk within their own field. However, upon leaving politics, several members of government have not been able to use the revolving door into the top of other institutional hierarchies but have had to settle for positions as lower level lobbyists. The value of political capital in Denmark should not be overestimated.

FIGURE 8: NETWORK PROFILES OF MOST CENTRAL AND NOTABLE ABSENTEES

	Top affiliations										Other affiliations													
Thorild Engell Jensen	0	2	0	0	1	0	0	0	0	3	4	4	2	0	0	0	0	1	0	1	0	0	0	0
Lars Nørby Johansen	0	3	0	1	0	0	1	0	1	6	1	0	0	0	1	0	1	0	0	1	0	0	0	0
Bente Sorgenfrey	0	0	0	0	1	0	2	0	2	0	5	1	1	2	0	1	0	1	0	1	0	2	0	0
Lars Bentzon Goldschmidt	3	0	0	0	0	0	0	0	0	5	2	0	0	1	0	0	0	0	1	1	0	0	0	0
Jørgen Mads Clausen	1	3	0	1	0	0	4	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Sten Scheibye	0	2	0	3	0	0	2	0	2	4	0	0	0	0	1	0	0	0	0	0	0	0	3	0
Thomas Peider Hofman-Bang	2	2	0	0	0	0	1	0	2	2	1	0	0	0	1	0	1	0	0	1	0	0	0	0
Peter Schütze	0	4	0	2	0	0	2	0	0	2	1	0	1	0	2	0	0	0	0	1	0	0	0	0
Kim Simonsen	0	1	0	0	1	0	0	0	0	0	3	7	1	0	0	0	1	0	0	0	0	0	0	0
Harald Børsting	0	0	0	0	1	0	0	0	0	0	3	5	0	3	0	0	0	1	2	1	0	0	0	0
David Hellemann	0	0	0	0	0	0	0	0	1	0	13	0	0	0	0	0	0	0	0	7	0	2	0	0
Dronning Margrethe	0	0	0	0	0	0	0	0	13	0	0	0	0	0	1	0	0	0	2	0	0	4	0	0
Helle Thorning-Schmidt	0	0	0	0	0	0	1	1	8	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0
Henrik Mogens Wedell-Wedellsborg	0	0	0	6	0	0	1	0	6	0	0	0	0	2	1	0	0	0	0	0	0	2	3	0
Jens Nørgaard Oddershede	0	0	0	0	0	0	1	0	3	5	0	0	2	0	0	1	0	0	0	0	0	0	2	0
Merete Helene Eldrup	0	0	0	0	0	1	1	0	2	0	0	0	0	4	2	1	0	0	0	0	0	0	2	0
Peter Gæmelke	0	4	0	1	0	0	0	0	0	1	1	0	1	0	2	0	0	0	0	0	1	0	0	0
Poul Erik Tøjner	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0

	Notable absentees											
Ane Mærsk Mc-Kinney Uggla	0	1	0	0	0	0	0	0	1	0	0	0
Børge Dahl	0	0	0	0	0	0	0	0	7	0	0	0
Dennis Dandanell Kristensen	0	0	0	0	0	0	0	0	0	1	3	0
Eelco Lucas Dudok van Heel	0	1	0	0	0	0	0	0	2	0	0	0
Ingrid Stage	0	0	0	0	0	0	0	0	0	0	0	0
Jesper Lien	0	0	0	0	0	0	0	0	0	0	0	0
Knud Foldschack 1	0	0	0	0	0	0	0	0	0	0	0	0
Lars Kristinus Larsen	0	0	0	0	0	0	0	0	0	0	0	0
Maria Rørbye Rønn	0	0	0	0	0	2	1	0	1	0	0	0
Morten Bødskov	0	0	0	0	0	0	0	1	5	0	4	0
Ole Wæver	0	0	0	0	0	0	0	0	0	0	0	0
Peter Henrik Skov-Jakobsen	0	0	0	0	0	0	3	0	6	0	0	0
Pia Merete Kjærsgaard	0	0	0	0	0	0	0	1	5	0	0	0
Lars Von Trier	0	0	0	0	0	0	0	0	0	0	0	0

	Notable absentees											
Ane Mærsk Mc-Kinney Uggla	0	0	2	0	0	0	1	0	0	2	0	0
Børge Dahl	0	0	1	0	2	0	1	0	0	1	1	0
Dennis Dandanell Kristensen	0	2	0	0	0	0	0	0	0	0	0	0
Eelco Lucas Dudok van Heel	0	0	0	0	0	0	0	0	0	0	0	0
Ingrid Stage	0	0	0	1	1	0	0	0	0	6	2	6
Jesper Lien	0	1	0	0	0	0	0	0	0	0	0	0
Knud Foldschack 1	0	1	1	2	1	1	8	1	0	5	0	0
Lars Kristinus Larsen	0	1	0	0	0	0	0	0	0	0	0	0
Maria Rørbye Rønn	0	2	1	0	0	0	0	0	0	0	1	0
Morten Bødskov	0	0	0	0	2	0	0	0	0	0	0	0
Ole Wæver	0	0	0	0	1	0	0	0	0	1	0	0
Peter Henrik Skov-Jakobsen	0	0	0	0	0	0	0	0	0	0	2	0
Pia Merete Kjærsgaard	0	0	0	0	0	0	0	0	0	0	0	0
Lars Von Trier	0	0	0	0	0	0	0	0	0	0	0	0

	Business organisations	Corporations	Culture	Interest groups	Law	Media	Other	Politics	Royal	Science and education	State	Unions
Business organisations	0	0	0	0	0	0	0	0	0	0	0	0
Corporations	0	0	0	0	0	0	0	0	0	0	0	0
Culture	0	0	0	0	0	0	0	0	0	0	0	0
Interest groups	0	0	0	0	0	0	0	0	0	0	0	0
Law	0	0	0	0	0	0	0	0	0	0	0	0
Media	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Politics	0	0	0	0	0	0	0	0	0	0	0	0
Royal	0	0	0	0	0	0	0	0	0	0	0	0
Science and education	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Unions	0	0	0	0	0	0	0	0	0	0	0	0

Network profiles of the most central individuals, other holders of key positions and notable absentees (see Table 3). ‘Top affiliations’ denotes holding positions in the top 20% most central affiliations in mutually exclusive subsector networks. ‘Other affiliations’ denotes position in the less exclusive affiliations of the subsector networks.

As with political capital, the power to mobilise civic society behind the climate or environmental cause, on social policy or gender equality, is not enough to become part of the power elite. Of the interest groups not tied to organised labour or corporate interests, only 14 are part of the elite. Of these, 11 are closely tied to the interests of the agricultural industry and the original rural challengers to the incumbent elite. However, since the rural challenge, farmers have joined forces with the landed

aristocracy, so that three of the 11 representatives of interests groups of farmers are also part of the Danish nobility. The only other interest group that has gained access to the power elite is the state-subsidised Council of Consumers, which has three directors in the network of the power elite. Other social movements remain at the middle levels. They may be taken into account in matters regarding their specific area of interests but are not allowed to impose their concerns on other issues that may have indirect consequences on their issue of concern. The key actors of the social reforms and institutionalised bargaining system from the start of the twentieth century are still the only representatives of civil society with network centrality high enough to enter the circles of the power elite.

Three other institutional orders traditionally regarded as central in liberal democracies – law and culture – also have marginal positions in the network of the power elite. Tellingly, the president of the Supreme Court, Børge Dahl, is ranked only 938 for reach in the network of linkers. Of the eight lawyers in the power elite, the most central, Henrik Wedell-Wedellsborg, ranked 29 and lawyer for Her Majesty the Queen, is part of the Danish nobility and has many ties to the haute bourgeoisie. The representatives of the cultural field who have sufficient network centrality to enter the power elite mostly head up large institutions. One such is Poul Erik Tøjner, ranked 254 and Director of the Louisiana Museum of Modern Art while also holding positions in the foundations of the royal family and in the largest publisher, Gyldendal. No artists or architects are part of the power elite. Internationally renowned filmmaker Lars von Trier has no position in the network. This shows how holders of very high amounts of field-specific cultural capital are not necessarily able to convert their capital in the networks of the power elite. If anyone within the realm of culture is allowed into the circles of the power elite, it is the administrators and leaders of well-established bourgeois culture.

The position of media resembles that of culture. Only two members of the power elite hold media positions: the CEO of the state-owned commercial broadcaster TV2 and former civil servant Merete Eldrup, ranked 188; and the CEO of the media house responsible for publishing three of the highest circulated Danish newspapers, Lars Henrik Munch, ranked 137; hence, they belong to the large group of chief executives of the top 200 corporations. Both hold other corporate board positions, for example in the financial sector. No journalists or editors-in-chief manage to enter the core of the elite network, although several editors are quite close. Even the newly appointed Secretary-General of the national broadcaster DR – Maria Rørbye Rønn, ranked 1066 - is not part of the power elite. Like the political field, this lack of formal integration could be the product of a negative inclination within the journalistic field towards socialising with the powerful. However, it could also imply that the media are

of less importance – something to be handled by subordinates – to the core members of the power elite.

Unlike culture, law and media, the institutional order of academia seems to play a significant role in the Danish power elite. All principals of the eight Danish universities are members of the elite, along with several principals of university colleges and technical colleges. But 34 scientists are also part of the elite, with 44% coming from the field of economics. As formal counsellors of government, these economists are tied to leaders from unions and the corporate sector, which underlines that when it comes to political influence of the social sciences, the economic profession has taken centre stage (cf. Chwioroth 2007; Fourcade, Ollion, and Algan 2015; Lebaron 2003, 2008). However, the number of natural scientists tied to the power elite through foundations, and also tied by smaller entrepreneurial firms, indicates that collaborations within academic capitalism (cf. Slaughter and Leslie 1997) could tie the academic and the corporate order closer together (see Figure 6). This also means that the parts of academia that are most relevant for the corporate sector– economists, natural and particularly technical scientists – can exchange their specific form of academic capital in the field of power, whereas faculties of arts or humanities remain excluded from the circles of power as artists or journalists. One example of this could be the highly renowned political scientist Ole Wæver, one of the key architects behind the Copenhagen School of International Relations, who only holds one position in the entire power network. Academic prestige alone does not lead to network centrality. To become part of the power elite, one must have relevance for the establishment of the economic order.

The elevated elite – cohesion of the organised minority

When looking at the members of the power elite, one thing comes to mind – they look very much alike. Dressed in suits – no matter which institutional order they adhere to, with the scientists as the most likely exception – the core of the elite network are very often middle-aged white men. As seen in Table 5, fewer than one in five of the power elite members are women and only a fourth are under 50 years of age, with only nine individuals under 40. Furthermore, only a single member of the power elite – 37-year-old Soulayma Gourani, of mixed Moroccan and Danish descent – is not white, and only 10 were born outside Denmark, half of these to Danish parents. As Zweigenhaft and Domhoff (1998) argue, the cohesion of the power elite is thus further strengthened by their homogeneity. Even though 10 members of the power elite live abroad, active participation and presence in Danish society appears to be a prerequisite to enter the core of the power network. Although some sectors are more open towards women, particularly unions (46% women) and science and education (27% women), men

remain the majority in all sectors. In spite of a universal welfare system, government-provided child and health care access to education and the efforts of suffragist and feminists that has existed for many decades, the contemporary Danish power elite bear a striking resemblance to power elites of the past.

TABLE 5: DEMOGRAPHICS OF THE POWER ELITE

	N	PERCENT
<i>Gender</i>		
Female	82	19.4%
Male	341	80.6%
<i>Age</i>		
Less than 40 years	9	2.1%
40-49 years	87	20.6%
50-59 years	144	34.0%
60-69 years	129	30.5%
At least 70 years	16	3.8%
Unknown	38	9.0%
<i>Place of birth</i>		
Copenhagen	94	22.2%
Upper class Copenhagen suburbs	26	6.1%
Other Copenhagen suburbs	25	5.9%
Major provincial cities (+100,000 inhabitants)	51	12.1%
Medium provincial cities (25-100,000 inhabitants)	58	13.7%
Minor provincial cities (10-25,000 inhabitants)	33	7.8%
Tiny provincial cities (3-10,000 inhabitants)	25	5.9%
Rural (less than 3,000 inhabitants)	39	9.2%
Abroad	10	2.4%
Unknown	72	17.0%
<i>Area of living</i>		
Central Copenhagen	89	21.0%
Copenhagen upper class suburbs	132	31.0%
Copenhagen middle class suburbs	48	11.0%
Copenhagen working class suburbs	21	5.0%
Major provincial city (+100,000 inhabitants)	29	7.0%
Medium provincial city (25-100,000 inhabitants)	29	7.0%
Minor provincial city (10-25,000 inhabitants)	11	3.0%
Tiny provincial city (3-10,000 inhabitants)	17	4.0%
Rural (less than 3,000 inhabitants)	22	5.0%
Abroad	10	2.0%
Unknown	15	4.0%
<i>Total</i>	423	100%

The homogeneity of the power elite is further strengthened by shared educational backgrounds. As seen in Table 6, almost seven out of ten power elite members have a university degree. However, only 24 have attended the less prestigious Universities of Southern Denmark, Aalborg and Roskilde, whereas

249 out of the 296 with at least a higher degree have attended the two oldest universities in Denmark - the universities of Copenhagen and Aarhus - or the Technical University of Denmark or the Copenhagen Business School. Not only does it seem that access to the power elite is eased by enrolling in a high status university, but a few select programs of these universities dominate, with almost half of the members of the power elite (196 of the 423) having followed just eight programs. These are: economics (56 and 18); the law (38 and 10) or political science programs (13 and 22) of the University of Copenhagen or Aarhus University, business from Copenhagen Business School (32), or engineering at Technical University of Denmark (29). This highlights that few epistemic communities (cf. Haas 1992) tied to the professions (Abbott 2005) and international fields of expertise tied to economy and law (cf. Dezalay and Garth 2002; Lebaron 2003) are able to hold a central position in the power elite. However, since the late 1970s when admission criteria were first introduced in Danish higher education, only the political science programs have been among the top 25 programs according to the grade-point average required for entry. These institutions do not exist solely for those with the highest grades, even if most of them primarily recruit students from the dominant part of the social space (Thomsen 2012). Furthermore, the programs in law, engineering and business in particular enroll thousands of students each year. Although a background in these programs most certainly appear to be an import prerequisite, it is certainly not in itself enough to enter the circles of the power elite.

As seen in Table 7, almost a third of the power elite members come from a very privileged background in the upper classes. Furthermore, more than one in seven have parents who are mentioned among the 8,000 in *Kraks Blå Bog*, the Danish equivalent of *Who's Who*. Not only are a substantive majority from the absolute top of society, but only 6% have a known background in the working classes, which at the time of birth of most power elite members composed at least four-fifths of society. Becoming a member of the power elite is difficult for the children of the working class. If we make an imprecise odds ratio calculation we see that children of parents mentioned in *Who's Who* are more than 1,000 times more likely to become members of the power elite than working class children. Even in one of the most egalitarian welfare states in the world, a head start is paramount.

Some parts of the elite, however, are less closed than others. Unions - with the highest proportion coming from the working class in spite of almost two-thirds of their background unknown, and the only sector with no upper class recruits - are opposed to business and state and politics in particular, where 38% and 32% of known social background are from the upper class. Furthermore, at least 18 of the 38 businessmen or charity chairmen with parents in a managerial position were also part of the family controlling the corporation, most having inherited their current role. Adding to this, the five

members of the royal family also owe much of their position to the privileges of their family or in-laws, as do four of the eight children of landowners who, in addition to their positions in the farming organisation, still control the family estate.

TABLE 6: EDUCATIONAL BACKGROUND OF THE POWER ELITE

	N	PERCENT
<i>Highest Qualification</i>		
Doctorate	57	13.5%
Higher degree	239	56.5%
First degree	54	12.8%
Professional only	56	13.2%
None	5	1.2%
Unknown	12	2.8%
<i>Education Type</i>		
Economy	81	19.1%
Business	57	13.5%
Law	50	11.8%
Engineering	47	11.1%
Natural Science	37	8.7%
Political Science	36	8.5%
Humanities ¹	25	5.9%
Teachers, Nurses	15	3.5%
Trainee	16	3.8%
Vocational	32	7.6%
None	5	1.2%
Unknown	12	2.8%
<i>Educational Institution</i>		
University of Copenhagen	137	32.4%
Aarhus University	70	16.5%
Technical University of Denmark	29	6.9%
Copenhagen Business School	34	8.0%
Other Danish University	24	5.7%
Foreign University	7	1.7%
Other, None or Unknown	122	28.8%
<i>Total</i>	423	100%

¹: Includes Arts and soft Social Sciences

Although the upper class appears to be well represented, there are only weak indications that elite boarding schools or high schools are important institutions for elite reproduction. The three most-attended high schools are all public and in the same northern upper-class Copenhagen suburbs. Øregaard Gymnasium has nine, Holte Gymnasium has seven and Rungsted Statsskole has six alumni,

TABLE 7: SOCIAL ORIGIN OF THE POWER ELITE¹

	N	PERCENT	OR ²
<i>Upper Class</i>	99	23%	46.9
Manager	46	11%	
Politician ³	13	3%	
Principals, professors and leading doctors	13	3%	
Senior civil servant ⁴	12	3%	
Landowner	9	2%	
Royalty	3	1%	
Supreme Court lawyer	3	1%	
<i>Upper Middle Class</i>	97	23%	8.7
Junior Manager	44	10%	
Professions	19	5%	
Engineer	16	4%	
Academics	14	3%	
Military officer	4	1%	
<i>Lower Middle Class</i>	90	21%	2.7
Small businessman or self-employed ⁵	43	10%	
Farmers ⁵	19	5%	
White collar or clerks	10	2%	
Teacher	8	2%	
Small farmers	4	1%	
Salesmen	4	1%	
Foreman	2	0%	
<i>Working Class</i>	24	6%	0.1
Skilled worker	12	3%	
Unskilled worker	12	3%	
<i>Unknown</i>	113	27%	-
<i>Total</i>	423	100%	-
<i>Indication of Parent in Who's Who</i>	63	15%	80.2

¹: Class of origin is defined through self-reported description either in *Who's Who* or biographical articles. Since these are often just mentioned by title, their categorisation is somewhat inaccurate. To estimate odds ratios of entering the elite from different classes, social background has been coded in three classes with known occurrence in the parental generation of the power elite, c. 1955 (see Hansen 1964) – Upper Middle Class (5%), Lower Middle Class (14%) and Skilled and Unskilled Workers (81%). Furthermore, indicators of top positions, e.g. as Corporation Owner or Manager, Member of Parliament, or University Professors – position elevating one at least to the most resourceful 1% of society – have been distinguished in the ‘Upper Class’.

²: Odds ratios are calculated using only the proportion of known social backgrounds against the proportions of the entire population mentioned above. There are approximately 8,000 biographies in *Who's Who*. As these span at least two generations, probably no more than 4,000 individuals in each generation have parents mentioned in *Who's Who*. If the power elite are seen as belonging to a single generation – or one-third of the population of 5,500,000 inhabitants – the probability within this generation of having parents mentioned in *Who's Who* is around 0.0022. Because of the reliability of sources and estimations in the calculations, the odds ratios should be interpreted cautiously.

³: Includes one union leader of the National Teachers Associations

⁴: Includes one bishop and one high-ranking military officer.

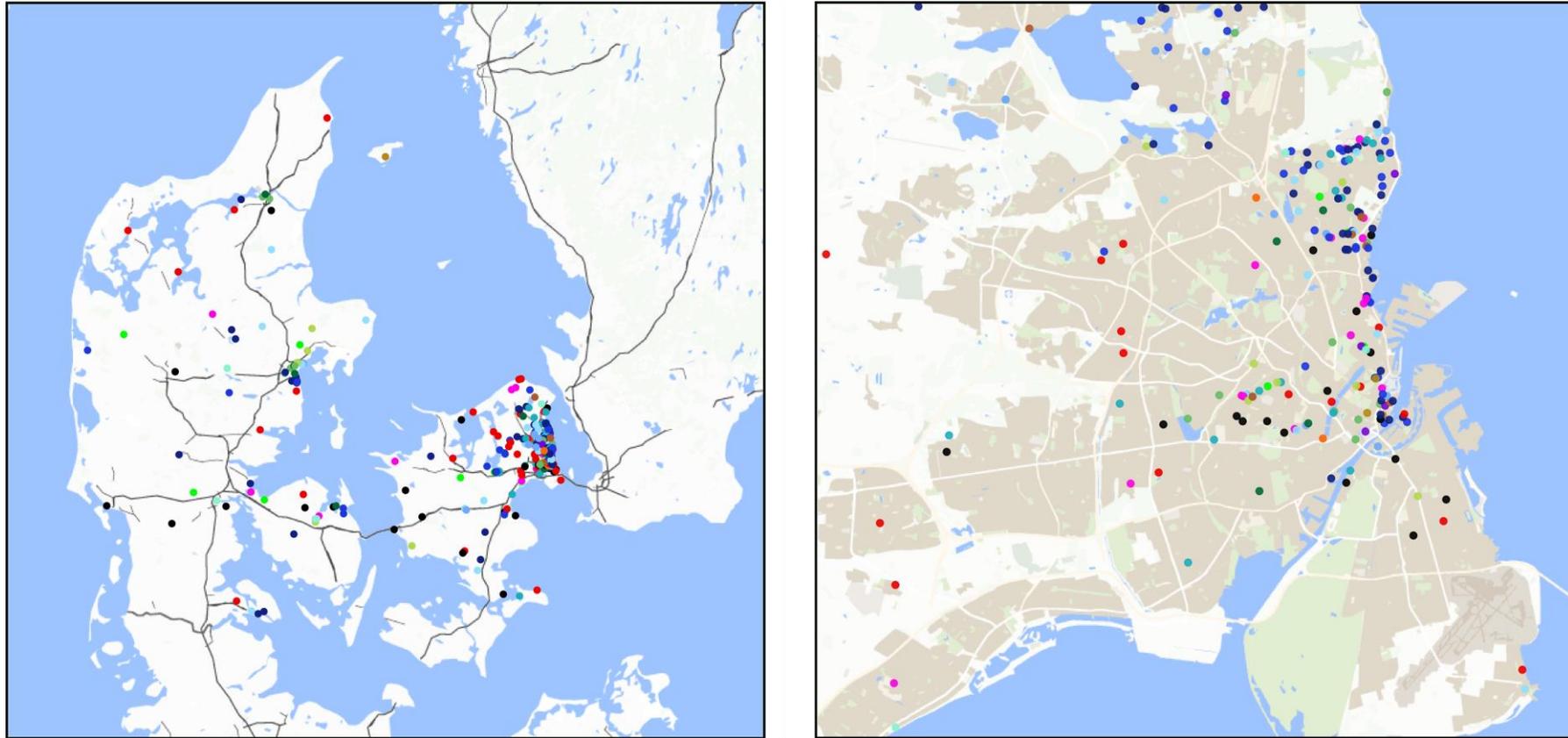
⁵: Many farmers and small businessmen may actually, depending on their number of employees, be part of the upper middle class.

or just over five per cent of all members of the power elite. This is because the majority of the elite are not born in Copenhagen. With around one-fourth of the population living in the Copenhagen area in 1960 and 41% of the power elite born here, the power elite are certainly more often raised in the capital but in no way to the same extent as in the upper classes.

Although the birthplace of the elite may be somewhat dispersed, the living patterns are not. Two-thirds (66%) live in Copenhagen or Copenhagen suburbs, with almost half of these concentrated in the up-scale northern Copenhagen area. As seen in Figure 9, not only are the elite concentrated in certain areas, but other areas of Copenhagen, particularly the working-class western and south-western suburbs, are almost completely no-go, especially for the business elite. Furthermore, rural areas are also avoided by members of the power elite, especially those far from the three major provincial cities, notably the southern islands and the south, west and north of the Jutland peninsula. By zooming even further in we see that the power elite cluster around certain streets. Even within the same posh area we find clear patterns. It seems important to live on the 'right side of the tracks'. This is seen by the divide across the major highway north of Copenhagen with the elite clustered along the coastline.

The Danish power elite thus conform to the image of middle-aged white men. Furthermore, their homogeneity is strengthened by shared educational credentials and social background. Adding to this, a majority of the elite share very distinct housing patterns. Although there are differences in the social profile of the elite members, especially between unions and business, as a group they are quite homogeneous.

FIGURE 9: RESIDENCES OF THE POWER ELITE



Known Danish residences in the entire country and the Copenhagen area for 398 of the 423 power elite members. Colors denote sector affiliation (see Figure 4).

The limits of the power elite

The power elite are the by far the most well-connected group of people in Denmark, but this does not mean it includes only powerful individuals and organisations. More importantly, the network dominance of the power elite tells little about the efficiency of its influence. The Danish elite and Danish society are embedded in global structures, of which Denmark is a very small part. Even within Denmark there are forms of power that differ from those present in the elite networks, which may challenge and limit the influence of the power elite. These can be social movements, media and extreme wealth.

With the growing importance of the European Union, a great number of ‘the decisions having major consequences’ (cf. Mills 1956:4) on issues such as monetary politics or environmental and import regulation are taken outside the power networks of Denmark. Top Danish politicians and bureaucrats may be heard, but also constitute a tiny minority of the interests that must be taken into account. Furthermore, within the post-Fordist workfare states (Jessop 1993), the politics of corporate taxation and working conditions are restricted by a competition between states that take part in a race to the bottom. Cross-national comparisons by international organisations such as the OECD on both primary and higher education have countries changing policies to perform better in these rankings. These and many other factors reduce the influence of national elites, and as a result, some elite members look to the international scene for influence.

This internationalisation could lead to a disruption in the national power networks. Recent studies have shown both the fracturing of national corporate networks, either from the growing influence of foreign capital as in Switzerland (Bühlmann, David, and Mach 2013) or The Netherlands (Heemskerk and Fennema 2009), or as product of the lack of need for class action in the US (Mizruchi 2013). At the same time, a rise in both trans-European (Heemskerk 2013) and global interlocks (Carroll 2003, 2009; Carroll and Sapinski 2010) underlines that new transnational alliances are being forged. Only a few Danes take part in the major, informal transnational network and most of the participants here are also present or past members of the Danish power elite.

Not all forms of power need to be connected, though. As argued by Jeffery Winters (2011), holders of extreme wealth may simply use intermediaries to exercise their influence or wealth defence. Thus, the members of the power elite do not need to be the actual holders of power resources, but their representatives. However, they are likely to be tied to the same sector as the oligarchs they represent. Others may not be interested in converting their capital, simply because they have a greater *illusio* (cf.

Bourdieu 1996:3) for their particular field than to achieve dominance within society at large. This could be the case for artists such as Lars von Trier or scientists like Ole Wæver, both internationally renowned within their field. Some may have a potential for converting their capital, but lack any interest in doing so. Often this could also be explained by the fact that the low conversion rate would lead to being seen as a sell-out or as corrupted, without gaining a much more central position in the network of the power elite. The fact that no former or current artists are part of the core of the power elite suggests that either all artists are disinterested in participating in power networks or that the possibilities of conversion are in fact minimal.

Although interaction and network relations are of great importance, much insight can be gained by analysing the structural oppositions that can be identified within a Bourdieusian framework through multiple correspondence analysis (cf. De Nooy 2003). By using social background, educational profiles and career trajectories as indicators of the forms of capital structuring the field of power, the 'objective' relations can be identified, but this requires an even more elaborate prosopographical database on the members of power elite to yield valid results. Furthermore, in studying the integration of the power elite, it should be kept in mind that the elite network is also tied through former connections, informal ties, links through marriage and family, and career movements between sectors. Although this simply means that the level of integration is underestimated, it can also lead to an underestimation of the level of integration into the core of the power elite by groups tied primarily through these less formal connections.

It may be argued that the implications of being integrated into this group are theoretically debatable. For instance, the proposed correlation between network centrality and the power of an individual could be deemed controversial. It could be argued that an individual could have vast influence without being central or even integrated into the elite network. Even with this reservation in mind, the empirically identified core of 423 individuals still constitute a highly integrated social group involving a large proportion of positions in Danish society. The composition of this group is interesting to cross-national comparisons, even if one argues that it does not contain all theoretically relevant elite individuals. Will the further developments of welfare-state retrenchment and neoliberal reforms in, for example, the UK or the US, be reflected in a different composition of the core of the elite? Will the role of the state differ in highly centralised countries such as France? And how about countries where oligarchs dominate, such as Italy under Berlusconi, Russia under Putin or Ukraine under Yanukovich (for more the last case, see Kostiuchenko 2011, 2012). These questions can be illuminated by cross-national comparison of elite network cores.

Concluding remarks: The cohesive power elite in the welfare state

Even in Denmark, one of the exemplary cases of an egalitarian society, there is a vast difference in centrality, even within the 1% of Danes holding a position in the power network. Furthermore, central positions in one sector of this network also lead to central positions in the networks of other sectors. However, the primary brokers between these sectoral networks are a small, exclusive group. This power elite of 423 individuals can be identified in the core of the elite network. Judging by the occupation of core members, the strong position of business and business associations –52% of the power elite – implies that controllers of economic power are the dominant institutional order, even in a Scandinavian welfare state. Even if labour unions still hold a place, they are outnumbered and their most central representatives have adopted a corporate-friendly political line. The other key institutional orders present in the power elite are state and politics, joined by the leaders of the academic world. Thus, Mills' notion of the power elite proves relevant in understanding the composition and integration of various elites in Denmark. Even in the egalitarian welfare state, the leaders from a select few organisations are interlocked into a tightly knit network.

These institutional orders are connected through the governing bodies, advisory boards or official events that constitute the power network. The power elite are thus not just acquaintances. They are identified as the core of primary decision-making affiliations. By sharing decision-making responsibilities on boards, elite members are obligated to reach a common ground, and not just informally. In spite of the conflicts of interest in the institutional orders, they are tied not only through their shared memberships, but also by shared social background and demographics, lifestyle, and professional outlook from the same university programs. However, this power elite is far from omnipotent. Global developments limit both the reach and framing of the decisions made by this nationally based elite. Adding to this, internal challenges to the legitimacy of the power elite are made by social movements or the media. But these challenges face a cohesive group of interlocked institutional orders. The sectors represented in the power elite show the relative strength of the key institutional orders that got us to the Denmark of today.

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