

# The Impact of Danish National Culture on Strategy Formulation Process of an NGO

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## Abstract

There is a growing number of NGOs around the world, with various social and environmental improvement missions. In Denmark, DSF - Danske Studerendes Fællesråd, is one of the largest student unions that are fighting to improve student lives for all long term educations. Like many NGOs, DSF has to deal with a changing environment, gathering and interpreting information from their environment, to identify and establish priorities among emerging strategic issues. This indicates, that strategy formulation plays an important role in dealing with external adaptation, which just as internal integration, can be seen to be inherently influenced by national culture. This is theorised as social norms influence the use of information - the key focus of strategy formulation. In light of this, the purpose of this thesis is to understand and quantify the extent to which national culture, as described by Hofstede's (1980, 1983, 1988, 1994, 1998, 2010) cultural dimensions, influences the strategy formulation steps of the member organisations of DSF during a decision process up to and during a Political Conference (PK). As a result the research question of this thesis is; "*To what extent is strategy formulation influenced by Danish culture of a national NGO?*". To answer our research question, a review of past literature of the two concepts - strategy formulation and national culture was conducted, in order to understand how this bivariate relationship is theorised, with considerations of the implications of studying an NGO. Then a questionnaire answered by 41 respondents has been analysed using OLS regressions, univariate analysis and Fisher's exact tests. The findings of our analysis support our general hypothesis that there does exist a relationship between the two concepts, strategy formulation is dependent on national culture, however not to the extent that was theorised, as the first two stages of strategy formulation were deemed uncorrelated to national culture. The findings also suggest, that there are certain inconsistencies with the main theorists used in this thesis. Such research is assumed to enable an individual outside of the NGO to better understand 'how' and 'why' the strategy formulation of an NGO occurs as it does, in order to better interact with this key player in business.

**Key words:** national culture, strategy formulation, NGO framework, controlling vs adapting, information, environment, Denmark

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## Introduction

Nowadays, in a highly globalized world, cultures are shifting, adjusting and even diminishing at an ever increasing phase (Lehmacher in Quora, 2018). Above all, businesses and other types of private organisations undergo the most drastic changes as a result of increasingly competitive industries, where survival on the market is granted only to those, who are willing to adapt and change according to their environment, which is no longer confined within their national borders. Some scholars claim that globalization is a disease, which spreads Western values across the globe inevitably resulting in deterioration of national identities and cultures (Kaul, 2012, 342). As a result, isomorphic forces can lead to structural homogeneity within organisations (DiMaggio & Powell, 1983, 149). These pressures stem from various stakeholders, changing environment and cultures (DiMaggio & Powell, 1983, 149). Watson (2018) however suggests, that despite an existing degree of homogenization of cultures, globalization is *“far from creating anything akin to a single world culture”* (Watson, 2018, 1). By contrast, others claim that the positives of technological advancements and rapid innovation could not be achieved without a globalized world (Wang, 2008, 203). Nonetheless, one may not deny the impact of globalization on individual national cultures (Court, 2001, 200). Despite the impact that globalisation may have on national cultures, as businesses and organisations operate within cultures, whether consciously or unconsciously, they are influenced by national cultures one way or another (Geletkanycz, 1997, 615). As a result of the change brought by globalisation, organisations are in an urgent need to be able to reinvent themselves and change various operational aspects. For this reason we chose to emphasize the importance of strategy formulation as it has a potential to significantly ease and help the adjustment and adaptation process for various organisations (Schneider, 1989, 149). Miller and Friesen (1978) suggest archetypes for successful strategy formulation models and those which are most likely to fail. From this study, it is very clear that the innovative and adaptive organisations are more likely to succeed than those, which stubbornly stagnate on the basis of strong bureaucracy, heedlessness and impulsiveness (Miller & Friesen, 1978, 921). With the claims, that one of the consequences of globalization is slow diminishment of national cultures where different national cultures are becoming more and more similar (Kaul, 2012, 341), it is important to examine to which extent do local national cultures do in fact exist in combination with its effect on businesses. In

particular to what extent does the national culture have an effect on the process of strategy formulation within a Danish NGO. This issue relevant as globalization inevitably leads to businesses growing across national borders and are consequently facing challenges when formulating strategy for new markets where values and perceptions of reality differ from their own.

Literature suggests that strategic management rests on a premise that in order *“to remain viable, organizations must adapt to changes in their environment”* (Geletkanycz, 1997, 615). An effective environmental adaptation requires change and constant re-evaluation of organisational strategy (Ireland et al, 1987, 472). This involves identification and assessment of strategic issues as it is central to strategy formulation. Ansoff (1980) defines a strategic issue as *“a forthcoming development, either inside or outside of the organization, which is likely to have an important impact on the ability of the enterprise to meet its objectives”* (Ansoff, 1980, 133). Ireland et al (1987) examined this statement and suggested a positive correlation between strategic planning and organisational performance (Ireland et al, 1987, 469). Strategy formulation therefore deserves a significant amount of attention as it is one of the central aspects facilitating company’s success or failure (Miller & Friesen, 1978, 921). Significant amount of scholarly work has demonstrated the effect of national culture on the operations of various departments within companies (Ireland et al, 1987, 470; Geletkanycz, 1997, 628; Schneider, 1989, 155; Mintzberg, 1978, 936; Mintzberg et al, 1976, 251). According to Hofstede (1994), national culture has a far and wide reach, influencing almost if not all aspects of societies’ lives as *“the culture of a country affects its parents and its children, teachers and students, labour union leaders and members, politicians and citizens, journalists and readers, managers and subordinates”* (Hofstede, 1994, 7). In other words, national culture is inherent in all individuals of the society including entities such as NGOs and other kinds of organisations. In particular, these cultural values reflect in the way individuals of an organisation prioritize certain type of information as *“they selectively focus on information which supports their particular preferences”* (Geletkanycz, 1997, 617). Consequently strategy is formulated in accordance with the shared values, perceptions and preferences (Hambrick & Brandon in Geletkanycz, 1997, 617), thus the question arises;

*Does a singular national culture influence the adaptation process?*



Despite significant attention to the field of strategic management and national culture, there is a lack of a unified consensus on the relationship of these two concepts (Acur & Englyst, 2006, 70). There has been an extensive research conducted on the effects of national culture on corporations, however this research is prevalently positioned in the realm of private B2C corporations rather than public or non-profit organisations (Borden et al, 2010; Sminia, 2009, Sawyerr, 1993). In the researched cases, the nature of the corporations seen through economic goals and institutional structure may skew the impact of national culture. For this reason, in this paper, we decided to investigate this relationship in a scenario where strong economic agenda is absent such as in an NGO.

### **Why is this important? The power of NGOs**

NGOs have been a part of the international business scene since post World War II, and were initially a creation of the UN to act as international societal bodies whom should engage with the work of the UN (Martens, 2002, 271). Since the 1940s, there has been a great increase in not only the number of NGOs but the sphere of influence that has been attributed to them, both as political actors - as non-state actors in world forums, and as sociological actors with impacts through social movements (Martens, 2002, 272). An explanation for the increase in NGOs is the rise of a globalised world (Teegen et al, 2004, 470). Despite the numerous positive results from globalisation, it can also be seen to have had various negative effects on societies around the world (Teegen et al, 2004, 470). Social issues are no longer confined within state borders due to more corporations becoming transnational, creating global problems that are too complex for one state to handle and too large for a corporation to take exclusive responsibility for (Teegen et al, 2004, 470). Thus NGOs have become great actors for handling these transnational issues due to being more 'free' to choose which social movement they want to stand behind due to for example the lack of political demands of the NGOs (Teegen et al, 2004, 471). NGOs worldwide are increasingly gaining the status as organisational institutions, whose presence is closely linked to public and private organisational processes, with relationships to both government and private corporations (Doh & Teegen, 2003, 214). NGOs' power over the interaction between public and private entities stems from the perceived image that they have in societies, as they are seen as the holders of the moral high ground (Doh & Teegen, 2003, 206). NGOs often wreak havoc especially with the traditional profit maximization interests of the private sector and thus are often perceived as negative stakeholders which both private and public entities have to interact with (Doh & Teegen,

2003, 206). There is no doubt that NGOs and their missions have a profound influence on the society, often forcing governments and corporations to radically alter their strategies and operations (Doh & Teegen, 2003, 3).

Considering how important NGOs have become in shaping the transnational world that we live in and work within, we believe it would be interesting to see how the strategies behind these ‘disruptive’ NGOs are formulated. How are the strategies created that give power and rise to these NGOs? So the question arises;

*How are strategies formulated by an NGO?*

In order to inspect this question we first have to address the concept of an NGO and explore a real example of an NGO to understand the implications of studying such a case.

### **The case: DSF<sup>1</sup>**

In order to investigate the strategy formulation of an NGO, we chose to examine the Danish student union - DSF (Danske Studerendes Fællesråd). An NGO is defined as “*formal (professionalized) independent societal organizations whose primary aim is to promote common goals at the national or the international level*” (Martens, 2002, 282). Societal organisations, also understood as societal actors, are made up of individuals with non-official member backgrounds, all with a common goal which is non-profit oriented, independently running - with no governmental finance, with at least a minimal organisational structure (Martens, 2002, 282).

DSF is a national NGO<sup>2</sup> that represents 16 member organisations (MOs), and represents around 165.000 students across Denmark. These member organisations are long-term educational institutions such as Copenhagen University (KU), Danish Technological University (DTU) and Copenhagen Business School (CBS). DSF represents only academic, research based educations, thus institutions that educate students in nursing or pedagogy are not represented by DSF. DSF is therefore understood

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<sup>1</sup> All information gathered on DSF was gained through an informal meeting with one of the members of the executive committee and their website. Notes were taken and can be found in the appendix 1.

<sup>2</sup> An NGO is considered national when its mission dictates their efforts to be within only one state (Teegen et al, 2004, 470).

to be a ‘membership’ NGO or ‘club’ NGO. These types of NGOs usually include unions or business associations, which are groups of individuals within a society who take action for the people and group they are representing and are a member of (Teegen et al, 2004, 466). These NGOs are established because the members believe they stand stronger together, working to promote interests of their own members whether they are social, environmental or political (Teegen et al, 2004, 466). Since 1932, DSF has fought to ensure that students receive a high quality education and student lives under best possible conditions. DSF has some international relations, as it has partnerships with other national student unions, such as Zinasu in Zimbabwe, yet its main focus is national efforts and this will be the focus of this thesis.

DSF is considered to be both an advocacy and legislative NGO rather than an operational NGO, as an advocacy NGO works “*on behalf of others who lack the voice or access needed to promote their own interests*” (Teegen et al, 2004, 467). So, whether the voice cannot be heard by those in power, or the ones in power cannot solve the issue or there is no-one to take responsibility for the issue at hand, advocacy NGOs lobby in various ways to transform the dominant players’ relationships in order solve the conflicts that arise from market-driven efficiency and ethical considerations (Teegen et al, 2004, 467). There are insiders, who influence decision-makers directly, outsiders who mobilize public opinion and strategies that allow NGOs to infiltrate themselves into established system to lessen negative spillovers and promote social gains (Teegen et al, 2004, 468). DSF is the largest student representation on the national stage and is the ‘loudest’ in political involvement and representation of it’s students, through mostly outsider influence, yet DSF is also often involved in direct conversations with politicians.

Each university or member organisation (MO), have a legitimate local union that works as an advocacy NGO within the university, to promote the voice of the local students. As a result, there are minor differences in the focuses of the different university unions (MOs). Most of the local unions depend on the efforts of student volunteers, possibly with paid leaders and/or secretariat. Each MO has a leading representative, and make up a group called Landsforum of 16 members (one leader per university). They meet monthly with the executive committee, also called FU, which consists of 5 full time elected DSF employees.

In this thesis, we decided to investigate the strategy formulation that takes place within each MO in the time leading up to and during the biannual event hosted by DSF called the Political Conference (PK). During the Political Conference, all MOs and the FU meet for a weekend to discuss and vote on a political paper, a paper about a certain issue that affects all students - it can be financial needs of students, education quality, innovation within the education sector etc. The policy papers are used by DSF to advocate for issues, or guide opinions, to ensure that the 'correct' - according to the opinion of the MOs, statements are given. The policy paper will be released to each MO at least two weeks ahead of the PK, and during the time up to PK, MOs will meet independently and discuss the paper. Often discussions will centre around possible amendments to the paper due to disagreements. Then, during the PK, the MOs will have three deadlines. On the first day, an opening debate, where preliminary points are made, takes place. Subsequently, MOs hold their meetings where delegates have to submit their proposed amendments along with motivations of the amendment to the policy paper and a work plan. On the second day, there is another delegation meeting where proposed amendments of other MOs will be presented along with motivations for these amendments. Subsequently, there is a meeting with all the delegation leaders, where they discuss why different amendments have been presented, to gain more information what the other MOs opinions are. Following, there is another two delegation meetings, with one more leader meeting in between, where the delegation discusses how they will vote for the different amendments to amendments, and overall amendments. Once the voting starts in an open forum, there are a few opinion clarifications and why the amendments were presented, yet most decisions have been made apriori. On the last day, in open forum, the MOs vote on whether or not they can accept the policy paper and work out a plan with its applied amendments<sup>3</sup>.

What is interesting to examine, is how the constant influx of information that is given to the MOs in the delegation meetings is processed, and how a strategy is formulated around the information provided to the delegation. What type of information is trusted and prioritised more when decisions on amendments and voting have to be reached in the group? Each delegation varies in size from around 3 people for the smaller MOs such as the Architect Aarhus to around 18 people for the larger MOs such as Aarhus University. Therefore we are interested in how the delegation come to an agreement and vote.

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<sup>3</sup> See appendix 2 for a detailed program and deadlines during the PK

## Research Question and Hypothesis

The aim of this project is to use the case of DSF and the process that the MOs undergo before and during the PK to understand how the characteristics of Danish culture influences the strategy formulation that leads up to the voting in the public forum at the end of the PK. This is done to reveal a positive relationship that explores how strategy formulation is still a reflection of national culture even when an NGO is being studied. With the interest in mind, we have formulated the following research question:

*“To what extent is strategy formulation influenced by Danish culture of a national NGO?”*

In order to answer the research question, a hypothesis specific to the case was created, one which may be falsified:

*“The strategic formulation steps that the MOs undergo during the PK process is a reflection of the Danish national culture”.*

## Thesis overview

This overview is intended to prepare the reader for the structure of this paper. This thesis is structured around the steps needed to undergo hypothesis testing<sup>4</sup>, and so firstly in our theoretical framework, we will start by outlining our literature review. The literature review will emphasize the diverging works of scholars that focus on concepts of strategy formulation, culture and NGOs. Different schools of thought, approaches and concept definitions will be outlined in order to justify the choice of our main theories. Hofstede’s (1980, 1983, 1988, 1994, 1998, 2010) cultural theory was chosen alongside Schneider’s (1989) theory of strategy formulation as both of these theories provide a comprehensive framework and are easily interconnected and quantifiable. At the end of this section, the theories will be combined while emphasizing Denmark and its cultural positioning, which will allow us to make the main predictions that address our hypothesis. Finally we will consider the implications of studying an NGO.

The following section of our thesis will provide the reader with an insight of the methodology used in this thesis. We will also justify the choice of quantitative study, address validity, reliability and the

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<sup>4</sup> Hypothesis testing: *“is a process in which scientists evaluate systematically collected evidence to make a judgement of whether the evidence favours their hypothesis or null hypothesis”* (Kellstedt & Whitten, 2013, 4)

ethics of this research. The methodological section also includes an explanation of various analytical tools that we use, our stance of philosophy of science and describe our sample. Following methodology, the analysis section will provide a detailed description of the statistical tests that we conducted, which entail an analysis of our collected data by conducting several univariate, bivariate and multivariate statistical tests such as tabulations, correlations, OLS regressions and Fisher's exact tests. For each set of tests, individual findings will be highlighted and the main findings will be summarized throughout the analysis.

Our discussion will be divided up into a theoretical discussion and research based discussion. Firstly, we discuss our findings from our analysis, with a critical view of our theoretical framework in order to illustrate if there were any discrepancies found between our theory and our findings. In general the theoretical discussion is contribution based, where individual subsections will provide either a theoretical critique, an extension of it or a confirmation of the theoretical framework. We will furthermore discuss some of the potential methodological limitations or influences on our findings, in order to conclude whether the accuracy and validity of the paper was upheld or not. This will also allow us to briefly outline how this could have affected our results and what we did in order to combat it and avoid any kind of serious bias. The discussion section will be concluded by answering a general question: *"Overall, can we accept our alternative hypothesis?"*

Lastly, the conclusion will consist of two subsections - recommendations to future research and concluding remark. In the first subsection, we will provide a detailed advice about what could be an extension of this thesis and what kind of methodology could be used for it, and these recommendations will stem directly from our discussion. We will discuss several future avenues which we found the most interesting and relevant. In the conclusion we will restate our research question and explore if it can be answered with the findings of our research, and provide reasons why we consider this research and its implications relevant to the literature.

## Theoretical framework

Researching the effect of Danish culture on strategic formulation of an NGO means understanding the extent to which 'x' - being Danish culture has an effect on 'y' - strategic formulation. To do this, the two variables 'x' and 'y' have to be understood along with the elements that exist within the variables. Once we have critically understood the two concepts, we can begin to understand the effect that the Danish 'x' can have on 'y'. In this section we will review the existing literature on the relevant concepts of NGO, national culture and strategy formulation. We will further justify the choice of the main theories while clarifying which definitions are used. Lastly we will interconnect the theories at the end of this section, in addition to stating the theorised predictions.

### Danish culture

So what is 'x' in this research? Our goal for this project is to explore the extent to which Danish national culture influences the strategic formulation of our chosen NGO, and so this section of the theory will discuss the culture as defined by Hofstede, followed by the a description of the Danish culture according to the six dimensions Hofstede presents.

### Defining the concept of culture

National culture is a nebulous concept, and studies of cross-cultural management indicate, that national culture characteristics play an important role in the attitudes, that employees' have for their work and workplace (Kirkman et al, 2009, 744). Many theorists have contributed to the field of culture, as Olie describes, there were already over 164 different definitions of the concept culture by 1951 (Olie, 1995, 128). However, to this day, Geert Hofstede's (1980, 1983, 1988, 1994, 2010) work on national and organisational culture remains the most cited work within the field, as Hofstede's contributions are perceived as "*highly invaluable insight into the dynamics of cross-cultural relationships*" (Jones, 2007, 4). Hofstede's (1983) theory originated as a critique of pre-existing 'Convergence hypothesis' that flooded the 1950s and 60s, which stated that management was a universal thing, which should disregard both national and local environments (Hofstede, 1983, 75). Bartels (1967) was the theorist that shed light on the importance of culture, relating the concept to decision-making and business ethics

(Bartels in Jones, 2007, 4). Thus, Hofstede (1983) provided a definition of national cultures as “*collective mental programming*” (Hofstede, 1983, 76).

Hofstede (1983) explains that life experiences are interpreted and experienced a certain way, so national culture becomes “*an invisible set of mental programs which belongs to these country's national cultures*” (Hofstede, 1983, 76), indicating that a national culture should be seen as a collective phenomenon as it is shared with the group of individuals of the same society (Hofstede, 2010, 6). Jones (2010) supports Hofstede’s argument that the institutions that create the framework of our society both constrains and reinforces the ideologies shared in a particular culture (Jones, 2010, 3), by arguing that a culture is something that is introduced from birth and influenced throughout an individual’s life through schooling, family religion, television etc (Jones, 2007, 5). Observations of national culture should however be distinguished from an individual’s personality. Hofstede (2010) describes an individual’s personality as characteristics that are very unique to an individual, a set of mental programming that is inherited partly through unique set of genes and partly learned (Hofstede, 2010, 7). On the other hand, culture is something individuals learn from their surrounding social environment (Hofstede, 2010, 6). This is important to note as when conducting our surveys, we need to include enough respondents so that the findings reflect the national culture and not just personality traits.

In order to further understand the concept of culture, a distinction between national culture and organisational culture has to be made. Culture as a concept is not limited to the national level, but can also be used to describe the manner in which individuals in an organisation deal with external adaptation and internal relationships. According to Hofstede (1994), the two concepts differ by the membership aspect of culture (Hofstede, 1994, 9). Membership of an organisation is seen as partial and voluntary compared to the membership to a nation, which is permanent and involuntary due to the way that national cultures are embedded into individuals’ lives from birth (Hofstede, 1994, 9). Due to the nature of the research question, the concept of culture should be understood as national culture. We believe that although most organisational cultures that work within a nation’s borders are likely to share the same characteristics as the national culture (Hofstede, 1994, 9), there may still be differences in findings of organisational culture if one sole organisation was studied. Therefore from a study of organisational culture, conclusions of the Danish culture on strategy formulation could not be made.



Thus, it should be noted that whenever the term culture is used in this paper, it will reflect the concept national culture and not organisational culture.

Although Hofstede meets our need for defining culture, it is important to note that Hofstede has been heavily criticised for his work on culture. The first, and most prominent criticism is of ‘cultural homogeneity’ and ‘national divisions’, as nations cannot be units of measurement since cultures are not necessarily bounded by national borders (Jones, 2007, 5). Hofstede (1983) assumes that the population of a nation is homogenous (Jones, 2010, 5), however Jones (2010) illustrates how Nasif et al in 1991 pointed out that this would ignore the variety of ethnic groups which exist within most of the nations (Nasif et al in Jones, 2007, 5). Hofstede (1998) argues, that national identities are the only way for researchers to identify and measure cultural characteristics (Hofstede, 1998, 481). Hofstede’s work has been supported as the majority of replications and uses of Hofstede’s work have confirmed the predictions that Hofstede makes (Jones, 2007, 6). Another important criticism, is whether the dataset that Hofstede’s work is based on is too old to describe the modern rapidly changing environment accurately (Jones, 2007, 5). Yet, theorists indicate that Hofstede’s rigorous design, systematic data collection and coherent theory, which his work is based on, allows the culture to be understood across centuries (Jones, 2007, 6), and considering that Hofstede (1983) explains culture to be not something that is easily changed due to its institutionalisation, so national culture is stable, even over decades (Hofstede, 1983, 76).

An alternative culture theorist that provides a definition to the concept of culture is Edgar Schein (1992). Schein (2016) along with Scheiner define culture as “*accumulated shared learning of that [the] group as it solves problems of external adaptation and internal integration*” (Schein & Scheiner, 2016, 6) which provides the group with the ‘correct’ way to perceive, feel, think and behave in situations. According to Schein (1992), cultures can be examined through three aspects; espoused values, assumptions and artefacts (Schein, 1992, 17). These aspects become embedded into individuals’ goals, morals, beliefs, taken for granted phenomena etc. Schein provides a way understand the layers that are conveyed in what can be observed by an outside observer.

Hofstede (1980, 1983, 1994, 2010) will be used in this thesis as we are not interested in discovering the underlying assumptions of a culture with the help of the three aspects put forth by Schein (1992). This research is interested in identifying and measuring the presence of predetermined culture according to set theoretical arguments. This is done to examine how certain characteristics of the Danish culture influence the strategic formulation and whether the findings correlate with the theoretical arguments made by Schneider (1989). In addition, Hofstede's theory was chosen, as Chapman (1997) stated that *"It is not possible to deal with 'culture' in the area of business and management without becoming aware of the long shadow cast by the work of Geert Hofstede"* (Chapman, 1996, 18). It would be uninformed of this research not to use a theoretical framework that was cited 1,036 times in 14 years (Jones, 2007, 6). In addition, Michailova and Hutchings (2006) argue that Hofstede's work is the most comprehensive within cultural comparisons (Michailova & Hutchings, 2006, 389) - thus, we believed that it would be very successful to examine the Danish culture with Hofstede's six dimensions.

These dimensions can have a large effect on many different aspects within business, one of which is strategy formulation. According to Schneider (1989), the strategic issue identification process and its prioritization do not occur in a vacuum but are affected by other forces, one of which is national culture (Schneider, 1989, 150). Schneider (1989) defines culture as *"a system of shared assumptions that has developed over time to solve problems of environmental adaptation and internal integration"* (Schneider, 1989, 152). Schneider (1989) uses this definition to elaborate upon these two aspects of culture whilst acknowledging that there are minor cultural differences within a nation, however between-nation differences are of a greater significance (Schneider, 1989, 152). According to Schneider (1989), the two main sets of assumptions are the relationships with the external environment and internal relationships among the people (Schneider, 1989, 152). The former one represents external adaptation and the latter represents internal integration. External adaptation takes into account cultural variables such as perceptions of ambiguity, time and change, control, activity, truth and reality (Schneider, 1989, 153). On the other hand, internal integration refers to the nature of relationships within an organisation. This includes cultural variables such as hierarchy, focus on individual vs. group and social vs. task orientation (Schneider, 1989, 154). Schneider stresses that these cultural variables reflect continua and together represent complex patterns (Schneider, 1989, 152).

In summary, culture can be understood as a shared mental system based on a complex interaction of values, attitudes and behavioural assumptions, which varies across countries which can be measured by the use of six dimensions (Hofstede Insights, 2018). In 1974, Hofstede studied national value systems across 40 different countries, and the first four dimensions to measure culture characteristics emerged; ‘Individualism vs Collectivism’, ‘Power Distance’, ‘Masculinity vs Femininity’ and ‘Uncertainty Avoidance’ (Hofstede, 1983, 78). Where nations scored 0 to 100 in the different dimensions. Following a fifth dimension was contributed by Hofstede and Bond in 1988; ‘Long-term vs. Short-term Orientation’ (Hofstede & Bond, 1988, 19). In 2010, Hofstede included the sixth dimension ‘Indulgence vs Restraint’ (Hofstede, 2010, 280), however, this last dimension will not be discussed in this theory as this dimension does not appear to have any apparent influence on strategy formulation, and we intend to focus on the other more influential dimensions.

## Danish national culture

This next section of the theoretical framework will examine Danish culture specifically according to the five dimensions.

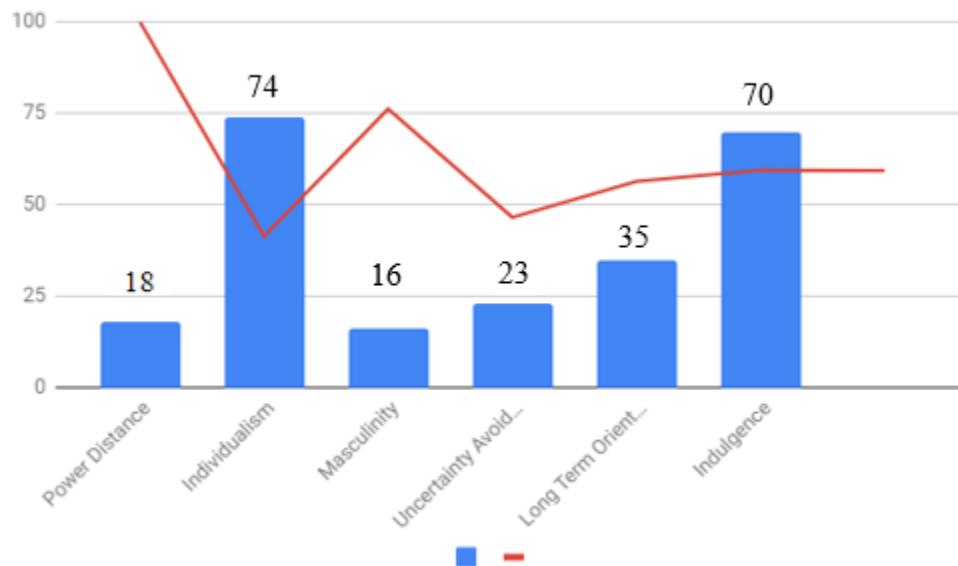


Figure 1: Denmark position on the 6 dimensions (Hofstede Insights, 2018)

For each dimension below, a short description of each dimension will be provided, yet the theory will be focused on the characteristics of Denmark. For example, Denmark scores low on the Masculine vs Feminine dimension and the theory will therefore mainly focus on the consequences of being considered a feminine society. Schneider's (1989) cultural assumptions will be incorporated according to relevance to each of Hofstede's dimensions.

### Power Distance

This dimension expresses how well a society deals with the inequalities found among individuals (Hofstede, 1983, 81), how the less powerful individuals of a group accept, and endures an unequal distribution (Hofstede, 1994, 2). It is impossible to have an entirely equal society, due to strong forces within societies that allow inequalities (Hofstede, 1983, 81). As indicated in the figure above, Denmark scores very low on this dimension, and even lower when considering the average<sup>5</sup>, indicating that Denmark strives for equalisation of power and demand for justification in situations of power inequalities (Hofstede, 2010, 61). This may increase the interest the country has for social inequalities that many NGOs create their social mission around - so more focus on NGO work may be present in a country such as Denmark. This dimension is correlated with the income equality of the nation and use of violence in the nation's politics (Hofstede, 1994, 6). This is present in the strong middle class and the small difference in social classes. Although Denmark, like most other countries, has not been immune to the rise of income inequality, Denmark has been discovered to have the lowest rate of inequality in a study by OECD - Economic Co-operation and Development (TheLocal, 2015). Denmark has shown the lowest ratio among all OECD nations when measuring how the richest ten percent of Denmark earn only 5.2 times more than the poorest ten percent (TheLocal, 2015).

For management, the degree of power distance relates to the degree of authority centralization and autocratic leadership that is likely to be observed (Hofstede, 1983, 81), however, people's work behaviour is affected by the experiences and expectations that were present during schooling and in the family (Hofstede, 1994, 2). The degree of hierarchy importance affects who makes a decision. Therefore hierarchy is one of the aspects of internal integration. Within the strategy formulation frame,

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<sup>5</sup>The red line in figure 1 illustrates an average that is made up of more than 10 randomly chosen countries and their scores taken from the Hofstede Insights (2018). This was done to understand what other countries scored to better understand the placement that Denmark has on each dimension.

this will have an impact on the choice of people involved in processing information, decision making and which validation approach is taken (Schneider, 1989, 154). Danish workers<sup>6</sup> low power distance translates into the requirement for autonomy at the workplace, belief in independence, equal rights, and accessibility to superiors and other resources (Hofstede Insights, 2018). Managers often expect to rely on the experience of their teams, and workers expect to be consulted and relied upon (Hofstede Insights, 2018)

### Individualism vs Collectivism

The second dimension is individualism vs collectivism, which is used to measure national cultures by how interdependent a society is and how much focus there is on having relationships with other individuals (Hofstede, 1983, 79). Within Schneiders (1989) framework, orientation towards individual vs group will determine whether an efficiency and progress is achieved by group work or individual performance (Schneider, 1989, 154). Denmark scores highly on this dimension - scoring much higher on the scale than the average, and thus is an individualist society. In an 'I' or individualist society, ties to others are loose (Hofstede, 1994, 2) and individuals through a large amount of freedom choose to only take care of themselves and immediate family (Hofstede, 1983, 79). At the workplace there is an emphasis on universalism - the same standards for everyone, and task is prioritised over relationships (Hofstede, 1994, 3). Purely observationally, as a result of Denmark being considered an individualistic society, at the workplace there will be a focus on direct communication with an informal atmosphere (Hofstede Insights, 2018).

Also, individualism is connected to the social class mobility of the nation and national wealth (Hofstede, 1994, 6). Michailova and Hutchings (2006) argue, that this dimension is the dimension that is most established of all social constructs, and a social construct that has been discussed since 1951 by Parsons and Shills (Michailova & Hutchings, 2006, 390). Michailova and Hutchings (2006) highlight that the degree of individualism or collectivism explains how cultures process and deal with information which is highly interconnected to the first stage of strategy formulation (Michailova & Hutchings, 2006, 401). This makes this dimension very interesting to study considering the research

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<sup>6</sup> By Danish workers, we imply workers within an organisation with a Danish organisational culture

question - how has Denmark's high individualism score influenced how the NGO collects information and processes it.

### Masculinity vs Femininity

This dimension describes which values are more likely to be present in a society. Through ages, human societies have associated certain tasks to the different genders (Hofstede, 1994, 3). However, depending on how arbitrary the society is to sticking to these typical tasks, a society can be determined as masculine or feminine (Hofstede, 1983, 85). No matter the distribution of tasks, male tasks seem more dominant, assertive and competitive, where female tasks seem more service-oriented, modest and caring (Hofstede, 1994, 3). Denmark scores low on this dimension, and is therefore considered a feminine society as it values things such as caring for others and making sure they have a good quality of life (Hofstede Insights, 2018). Danes focus on relationships and family rather than money task completion (Hofstede Insights, 2018). It's to be understood that women in masculine countries still have female values, but as more assertive and competitive - not as much as the men in the society, whereas the men in feminine countries are seen to be more modest, and caring like the women in the society (Hofstede, 1994, 4). This relates to strategy formulation as Schneider (1989) suggests, that task vs social orientation will determine "*the reliance on personal networks*" (Schneider, 1989, 154) and the degree of emphasis on individual's welfare over the importance of achieving goals (Schneider, 1989, 154).

At the workplace, individuals from a feminine society are more likely to stress life quality and work life balance, whereas individuals from a masculine society are more likely to focus on careers, achievement and competition (Hofstede, 1994, 4). Also, a work/life balance needs to be supported, and management is supposed to help and support workers (Hofstede, 1994, 4). Workers are often involved in decision making, and if conflicts arise they are resolved through negotiation, discussions and compromise (Hofstede Insights, 2018). This relates to the preference of consensus in the validation step of strategy formulation (Schneider, 1989, 153). Due to Danes striving for equality and quality, incentives such as free time and flexible work hours are appreciated (Hofstede Insights, 2018). In regards to activity perceptions, Schneider (1989) describes how nations may be characterized as either

proactive or reactive (Schneider, 1989, 151). These types of behaviour derive from whether nation values 'being' rather than 'doing' (Schneider, 1989, 153). In nations where 'being' is valued more, the emphasis is put on individual's job security or satisfaction, whereas individual's performance is at focus when 'doing' is valued more (Schneider, 1989, 153). Reactive and proactive behaviour may also be a result of perceptions of environment (Schneider, 1989, 156). Reactive behaviour takes place when the environment is unstable and uncontrollable, whereas proactive behaviour is a result of analysable and controllable environment (Schneider, 1989, 153). According to Schneider and Meyer (1991), more active approach may be taken in case of interpreting an issue as a threat (Schneider and Meyer, 1991, 308).

### Uncertainty avoidance

The fourth dimension examines how a society deals with time, and how a society accepts how the future is unknown and unpredictable (Hofstede, 1983, 81). The ambiguity that is presented with the unknown may create anxiety for some cultures, and each culture may deal with the anxiety in different ways (Hofstede Insights, 2018). Thus, this dimension indicates the level of comfort different cultures feel in unstructured situations - which are surprising, unknown and different (Hofstede, 1994, 5). Denmark scores low on this dimension, about half of what the average is (Hofstede Insights, 2018). A low score is considered a society with weak uncertainty avoidance, meaning a society will have a natural tendency to feel relatively secure with the unknown future (Hofstede, 1983, 81). Thus, individuals will mostly accept the present day as it is, take risks and work with an ease of mind. A weak uncertainty avoidance also means that people accept differing opinions without feeling threatened (Hofstede, 1983, 81). In a society like Denmark, there is less need for rules to control the ambiguity and insecurity that comes with the future and people tend to be more contemplative and show less emotions (Hofstede, 1994, 5).

According to Schneider (1989), the degree of uncertainty avoidance manifests itself in various ways of managing the lack of certainty or ambiguity in organisations (Schneider, 1989, 156). As uncertainty avoidance reflects in the relationships with the environment, Schneider classifies this aspect as external adaptation (Schneider, 1989, 152). An organisation may either strive to reduce certainty by known means or on the other hand, may manage it by "*matching the requisite variety of the situation*" (Ashby

in Schneider, 1989, 153). Means of reducing uncertainty, such as following bureaucratic procedure, also vary from culture to culture and reflect the approach to the way information is gathered and interpreted (Schneider, 1989, 152). Avoidance or tolerance of uncertainty and ambiguity correspond to the degree to which uncertainty may be either reduced or amplified (Schneider, 1989, 152). Change can be seen as either an opportunity and therefore desired, as change is seen as necessary for progress or change is seen as more of a threat and therefore to be avoided (Schneider, 1989, 154). This would be in cultures which have a high uncertainty avoidance or value systematic operation such as bureaucratic procedures (Schneider, 1989, 158).

Another variable that relates to external adaptation and uncertainty avoidance is the perception of control in an organisation. It is reflected in the approach to laws of nature and diverges between submission and domination (Schneider, 1989, 153). Submissive approach demonstrates itself in the fatalist behaviour where an organisation adapts to its environment instead of striving to control or manage it which would be a case of more of a 'frontier spirit' behaviour (Schneider, 1989, 153). As a result, at the workplace, both written and unwritten rules are disliked and there is a less formalised structure (Hofstede, 1994, 4). Also, due to their weak uncertainty avoidance, Danish workers do not need a lot of structure, are flexible when it comes to change and differences are also encouraged and expected along with curiosity (Hofstede Insights, 2018). Uncertainty is also not punished, asking for help becomes normal and workers are often comfortable in ambiguous workplace situations (Hofstede Insights, 2018).

#### Long-term orientation vs short-term orientation

The fifth dimension explores the degree to which a culture maintains links to the past when dealing with challenges of the present and future (Hofstede, 2010, 245-6). Schneider (1989) claims that in regards to time orientation, a culture may consider past and traditions more important than present or future (Schneider, 1989, 154). Time orientation also varies from view of time as "*linear, sequential and progressive (monochronic) instead of cyclical and simultaneous (polychronic)*" (Schneider, 1989, 154). Denmark scores relatively low to mid on this dimension, and thus is considered to be a normative society rather than a pragmatic one (Hofstede Insights, 2018). Normative or short-term oriented societies, prefer to maintain social traditions and established social norms while viewing social change



with great suspicion (Hofstede Insights, 2018). Also, they focus on fulfilling social obligations (Hofstede, 1994, 5).

As part of a normative society, Danish individuals need to establish what is the absolute truth (Hofstede Insights, 2018). Workers respect traditions yet focus on achieving quick and effective results (Hofstede Insights, 2018). Perceptions of truth and reality depend on individual preference of either hard facts and empirical evidence or philosophic principles, abstract logic and theory (Schneider, 1989, 153). Deductive or inductive reasoning is used in order to prove reality and truth (Schneider, 1989, 153).

Overall, an interesting argument to consider is whether one could argue, that there exists a degree of importance in the dimensions or scores on the dimensions that are more determining in establishing Danish-ness. Considering the deviating values, that the dimensions scores, from the mean of 50 (middle of the 1-100 score that Hofstede built the dimensions on), each country has been given a score on each dimension from 0-100, Denmark's scores can be seen in the figure 1 above. With a score of 16 on the masculinity dimension (Hofstede Insights, 2018), this becomes the dimension that deviates the most from the middle, and so we argue that this dimension should be the one that is the most observable in our NGO and has the most impacting effect on the strategy formulation. Second comes the power distance with a score of 18 (Hofstede Insights, 2018), becoming a close second to the most observable and impacting. Thirdly comes uncertainty avoidance with a score of 23 (Hofstede Insights, 2018), then comes individualism with a score of 74 (Hofstede Insights, 2018), and finally comes long-term orientation with a score of 35 (Hofstede Insights, 2018). We believe this is important to note, so when we have gathered our data, in order to determine whether Danish culture is present, the most dominant dimensions (the dimensions where Denmark's score deviates the most from 100), should gain the highest averages. This will be further explained in the methodology.

## **Strategy Formulation**

So what is 'y' in our research? We have explained what the 'x' in this research, so in this section of the theory we will discuss strategy formulation as a concept and the five different steps described by Schneider (1989), with a description of what is likely to be observed in a Danish NGO considering the Danish culture implications. Rather than focusing on the content of strategy formulation, the process

and underlying assumptions of it will be emphasized. Since strategy formulation, as a concept, lacks a universal definition, a brief assessment of existing influential work on strategy formulation will be outlined, emphasizing ongoing debate about the nature of strategy formulation and what facilitates an effective strategy formulation process.

## **Defining strategy formulation**

Strategy formulation has been researched since 1950s, with many different definitions and arguments surrounding what elements are considered in the concept of strategy formulation. Despite the different schools of thought, it becomes clear that strategy formulation, as a “*complex and meandering process*” (Sminia, 2009, 98), is a crucial part of strategic management. It is crucial as it involves the process of defining the context of strategic decision making and implementation (Lyles and Mitroff, 1980, 116). While the subject of strategy formulation has been approached from many different perspectives, the approach which is most relevant to this research, is the one which emphasizes the discussion of whether strategy formulation is an outcome of deliberate and conscious process or the contrary.

One school of thought comprises of scholars such as Barney and Hesterly (2008) or Grant (2007), and supports the idea that conscious and rational action best explains the process of strategy formulation (Hesterly & Grant in Sminia, 2009, 98). Hashim (2016) also has a similar approach and claims that strategy formulation follows a rational deliberate decision making process, whilst assessing organisational strengths and weaknesses to form a framework for the organisation to build a strategy on (Hashim, 2016, 2). Bordean et al (2010) also consider strategy formulation to consist of individual consciously achieved steps such as “*determining the organization’s mission, goals, and objectives and selecting or crafting an appropriate strategy*” (Borden et al, 2010, 27). This process is however not definite and terminal, it should be viewed as rather recursive and looping (Schneider, 1989, 150).

On the other hand, the opposing school of thought supported by scholars such as Johnson et al. (2008) or Mintzberg (1978), who consider the word ‘formulation’ misleading as it naturally evokes exclusively deliberate and rational action (Johnson et al, 2008, 43; Mintzberg, 1978, 947). Strategies evolve by unconscious and heedless processes rather than through deliberate rational decision making (Mintzberg, 1978, 947). This approach is supported by Sminia (2009) who suggests that the process of

strategy formulation should be approached and investigated as a process of change rather than as simply an activity of strategic decision making (Sminia, 2009, 98). Recently scholars contributed claims that strategy formulation is to be viewed as “*a process of ‘punctuated equilibrium’*”, where slow incremental change takes place (Romanelli and Tushman in Sminia, 2009, 98). Mintzberg (1978) does partially agree with this statement however only for certain types of strategy formulation modes. According to Mintzberg (1978), adaptive mode implies that the strategy formulation is mainly achieved by a process of complex bargaining and negotiating amongst decision makers and relevant players in the organisation and change is achieved incrementally (Mintzberg, 1978, 934).

Overall, there is a split between these two schools of thought, and their stance on the degree of consciousness that is involved in strategy formulation. Some scholars such as Ireland et al (1987) and Geletkanycz (1997), recognise that strategy formulation is not an either or when it comes to whether the strategy formulation process being unconscious or conscious, as they argue that there is a degree of cognitive recognition of individuals, yet what lacks is the understanding of how these perceptions impact their own actions unconsciously as they state that “*individuals' basic cognitive properties result in perceptions of the environment and of internal strengths and weaknesses*” (Ireland et al, 1987, 470; Geletkanycz, 1997, 618). This agrees with Mintzberg's work (1978), which defines strategy as “*a pattern in a stream of decisions*” (Mintzberg, 1978, 934). As this pattern may be seen “*as the interplay between a dynamic environment and bureaucratic momentum, with leadership mediating between the two*” (Mintzberg, 1978, 941), however it is not clear from this quote whether the strategy formulation phenomenon falls within conscious or unconscious field. Mintzberg (1978) recognizes the two opposing schools of thought and introduces two types of strategy formulations, the intended strategy and realised strategy (Mintzberg, 1978, 933). Intended strategies are characterized as conscious, rational and deliberately arrived at, regardless of whether the strategies are completed or not (Mintzberg, 1978, 934). On the other hand, realized strategies are recognized ex post facto (Mintzberg, 1978, 934). In other words, these strategies are simply patterned occurrences, which are recognized as strategies retrospectively after the strategies are realized (Mintzberg, 1978, 935). As we are examining the strategy formulation in a retrospective manner, recognizing the patterns of strategy ex post facto, our research is in fact positioned in the realm of realized strategies rather than intended strategies. Mintzberg (1978) suggests that strategy formulation is influenced by outside forces such as cultural and

environmental pressures regardless of the strategy type (Mintzberg, 1978, 934). Mintzberg et al. (1976) acknowledge that strategy is socially constructed and partially beyond one's cognitive capacity (Mintzberg et al, 1976, 935). This illustrates the importance to understand social constructs that strategies operate in, which supports in defining the external environment, affects strategy formulation. Therefore, strategy formulation does not occur in a vacuum but rather reflects the values and patterns adopted by those who formulate the strategy.

Considering the two schools of thought, Schneider's theory (1989) does not make it apparent if the theory can be applied to both intended or realized strategies or one or another exclusively. Thus, we cannot definitively categorize the theory into any school of thought. Based on speculations from the implications of the theory, Schneider's (1989) theory could be seen as a combination of both conscious/intended and unconscious/realized elements. We believe that the individual steps and their elements are a result of conscious and deliberate decision making and therefore resembles an intended strategy type. On the other hand, how the steps are carried out deeply depends on unconscious actions. Both the unconscious and conscious elements should be seen as being affected not only by national culture but one's personality, organisational culture, institutional arrangements, market and industry characteristics (Schneider, 1989, 150), yet in both conscious and unconscious ways. We believe, that Schneider's approach can be considered an intersection of intended strategy and realized strategy, thus we have to consider the implications of trying to measure the unconsciousness. The intent of the research is essentially to demonstrate how *"unconscious perceptual processes can be shown to play an important role in human experience"* (Merikle, Reingold, 1992, 56). This is done by looking deeply into the 'how' and 'why' - the unconsciousness behind each of the steps, and depending on Schneider's five step framework as the 'what' - conscious part of strategy formulation. As the realized strategy part is taken for granted in our case, we used it as a framework to categorize the unconscious strategy part. In particular the individual strategy formulation steps, in our case the conscious part, only poses as the structural framework, in order to allow us to examine how and why the intended strategy was realized.

In this thesis, we will use Schneider's (1989) interpretation of strategy formulation for several reasons. Firstly, Schneider provides a structure for categorizing strategy formulation, by outlining the process into 5 distinctive steps, with each step being influenced by national culture differently. Schneider's

(1989) work may be seen as an elaboration of Mintzberg et al's work (1976), where there is a clear identification of 3 steps of strategy formulation: identification, development and selection (Mintzberg et al, 1976, 252). Schneider extends this framework to 5 steps and focuses on the nature of these steps, the 'how' and 'why', rather than the content of the steps or the 'what'. The detailed measurable characteristics that Schneider (1989) describes, allow us to quantify the steps, which is needed to measure the causality relationship being the objective of our research. Secondly, Schneider's theory suggests a combination of both realised and intended strategy formulation elements. As the 5 steps of Schneider's strategy formulation may be considered intended, as it can be seen as a 'planned' or structured process, and 'how' the individual steps are undergone can be seen as the realised strategy. In this research we will follow a framework of intended strategy, since we are retrospectively intending to understand how 'x' impacted 'y' during the PK, so since our central focus is how the steps were undergone, we are focusing on the realized strategy type. Miller and Friesen (1982, 2010) argue that strategy formulation is to be examined retrospectively by focusing on behaviour rather than condition, in other words "*what happens in response to what*" (Miller and Friesen in Sminia, 2009, 100). The last reason is Schneider's elaboration upon the nature of internal and external environment and how that influences strategy formulation. Schneider proposes an elaborate structure of both these aspects whilst providing the specific links to both national culture and strategy formulation. Whilst we acknowledge that national culture is not the sole determinant of strategy formulation but rather part of an interplay of different forces and aspects, national culture will be at focus in this project.

## **Strategy formulation and National Culture**

According to Schneider (1989), the process of strategy formulation involves gathering information and identifying the emergent issues of strategic importance to the organisation followed by prioritizing these issues (Schneider, 1989, 149). However, Schneider claims (1989) that strategy formulation is "*the manner in which [an] organization knows and responds to its environment*" (Schneider, 1989, 149), thus the process of strategy formulation does not take place in isolation but rather transpires as an outcome of different stimuli - political, socio- economic, business objectives and national culture (Schneider, 1989, 150). Schneider (1989) explores how distinct national culture variables might influence the strategy formulation of an organisation as "*culture is thought to influence the way of*

*perceiving, thinking, feeling and evaluating [...] and affects the process by which the environment is 'known' and responded to*" (Schneider, 1989, 152).

According to Schneider (1989) there are two elements of strategy formulation, identifying the strategic issues, followed by prioritizing the emergent issues (Schneider, 1989, 150). The first element of identifying outlines four steps which the organisation undergoes; scanning the available information, selecting the necessary information, interpreting the information and validating which information is true (Schneider, 1980, 150). The second element of prioritizing the emerged issue is made up of one step, establishing priorities based on the previous information (Schneider, 1980, 150) (See figure 2). According to Schneider (1989), national culture has an effect on all these individual steps as the judgement of the organisational strengths and weaknesses and its environment cannot be objective but a *"function of perceptions and interpretations which will [...] affect strategic behaviour"* (Daft & Weick in Schneider, 1989, 149). It is important to note that this process should be viewed as recursive and looping rather than once occurring and terminal as the outcome of this process might result in further reinterpretation or scanning for more information. (Schneider, 1989, 150). In the following section, we will outline each individual step in the formulation process, along with Schneider's considerations of how national culture can affect the steps.

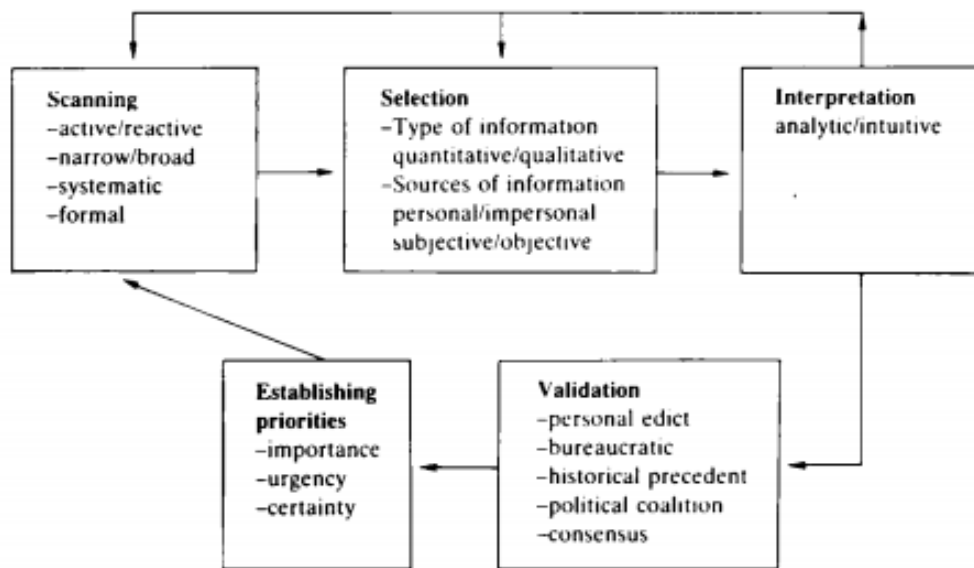


Figure 2: Schneider's 5 steps of strategy formulation (Schneider, 1989, 150)

## **The 5 steps**

### 1. Scanning

The first step is scanning, which entails searching and gathering relevant information to the organisation (Schneider, 1989, 151). Due to differing cultural perspectives on the environment, scanning ranges between being active or reactive, focused or broad, systematic, formalized or comprehensive (Schneider, 1989, 151). Scanning behaviour is mainly influenced by perceptions of uncertainty and control (Schneider, 1989, 150). Schneider (1989) explains, that in cultures where uncertainty is avoided, organisations scan more and assign more time and resources for this process, than in cultures where environmental uncertainty is not a determining factor (Schneider, 1989, 155). Perception of environmental uncertainty presupposes assumptions about control, as one way of decreasing uncertainty is to strive for environmental control which may be done by extensively allocating resources for scanning activities in order to explore more opportunities (Schneider, 1989, 156). This would be characterized as more proactive than reactive and on the whole would fit into a controlling model of external adaptation. On the contrary an adapting model would manifest itself in more reactive behaviour where an organisation accepts the amount of uncertainty and does not try to manage or control it. Subsequently, scanning would be characterized as more reactive and lead by external forces (Schneider, 1989, 156).

According to the low uncertainty avoidance level seen in Denmark (Hofstede Insights, 2018), one could argue that Danish individuals are more likely to be adaptive, broad and reactive scanners. Hofstede's work highlights that it is okay not to know, which would argue that Denmark does not have active searching, which is characterised in controlling scanners (Schneider, 1989, 161; Hofstede Insights, 2018). The lack of needed control through the curiosity, which Hofstede Insights argues is present in Denmark, and lack of formality and rules which is appreciated in the low uncertainty avoidance country of Denmark (Hofstede Insights, 2018), also explains the likelihood of a more broad and non-systematic scanning.

## 2. Selection

The selection process involves singling out the type and sources of information desired (Schneider, 1989, 151). This could be quantitative data such as polls, surveys and statistics or qualitative data such as in depth interviews. The source of the information obtained can either be informal and subjective from interpersonal networks, even from a relative or a friend or the information can be obtained from impersonal and objective sources such as media or written reports (Schneider, 1989, 151).

The type of information: Nature of truth and reality together with management of uncertainty determines whether the type of selected information is preferred to be of quantitative or qualitative nature (Schneider, 1989, 156). One of the ways how uncertainty is avoided, is striving to manage it by relying on quantitative information, selecting hard facts, mathematical models, statistics and figures, and in these cases truth and reality “*are believed to be determined by what is measurable and tangible*” (Schneider, 1989, 156). On the other hand, where uncertainty is not avoided but adapted to, qualitative information is preferred, due to the perception of truth and reality to be determined by theory, abstract logic and “*spiritual or philosophical principles*” (Schneider, 1989, 156). Denmark demonstrates openness to others’ philosophy, and curiosity which could explain a preference to qualitative information in addition to being relied on by their managers (Hofstede Insights, 2018).

Sources of information: Sources of information depend on a mixture between assumptions regarding relationships between people such as social or task orientation, the importance of hierarchy and value of group (Schneider, 1989, 157). Personal and subjective sources may be favoured in cultures with social orientation, due to such cultures consider personal information more trustworthy (Schneider, 1989, 157). Value of hierarchy also plays an important role as cultures with a strong hierarchical traditions favour ‘wise-man’s’ opinion more than the group’s consensus (Schneider, 1989, 151). On the other hand, sources of information tend to become more objective and impersonal as the group is stressed more (Schneider, 1989, 157). It seems a little unclear what source of information Danes would find more credible. There is likely to be a non-hierarchical preference stemming from the low power distance and there is a strong emphasis on the individual as Denmark is considered highly individualistic (Hofstede Insights, 2018), so information from individuals and their close relationships matters more than what the collective or society says, with a focus on consensus.



### 3. Interpretation

The interpretation process implies attribution of cause and effect and interrelation of problems or chunks of data (Schneider, 1989, 151). The interpretation process may either result in a formation of a filter, through which data is again scanned and selected, or may lead to next step which is validation (Schneider, 1989, 151). Schneider and Meyer (1991) distinguish three different ways for an organisation to react to uncertainty and ambiguity (Schneider & Meyer, 1991, 308). The company can either see uncertainty as a crisis, threat or opportunity, and the company's willingness to take risks depends on this view (Schneider & Meyer, 1991, 308). Interpretation of crisis derives from potential loss of profitability, and perceiving issues as either positive or negative results in interpreting the issues as either opportunity or threat (Schneider and Meyer, 1991, 308). A company's interpretation can either be analytic - based on mathematical models, resulting in use of forecasting systems and strategic planning, or it can be intuitive - based on theory and philosophy, resulting in broad mission statements (Schneider, 1989, 151). Whether the choice is to be more intuitive or analytic is dependent on the perception of truth and reality and uncertainty avoidance (Schneider, 1989, 157). In cultures where truth is a result of numbers, statistics and empiricism, individuals utilise linear deductive reasoning and analytical interpretation. On the other hand, intuitive interpretation takes place in cultures where truth and reality are determined by abstract logic, theory and philosophical discussion and in these cultures proof is demonstrated by inductive reasoning (Schneider, 1989, 158).

Danish individuals could be seen to be more intuitive than analytic, as there is such a low uncertainty avoidance (Hofstede Insights, 2018), which allows different opinions and philosophies to exist and steer the society (Schneider, 1989, 151). However, the Danish society also has to establish the absolute truth, and since there is no clear message as to which type of interpretation does this better, it may be a combination of both in order to be more certain of truth.

### 4. Validation

In this process issues are assigned relevance in 5 different ways. Firstly, it could be done by personal edict of leaders, where the leader makes a decision and is not questioned by anyone else in the organisation (Schneider, 1989, 151). Personal edict usually takes place in cultures with an emphasis on strict hierarchy where a leader plays a central role (Schneider, 1989, 158). This is not likely to be

observed in Denmark, as the power distance is low, resulting in low emphasis on the hierarchy and strong sole decisions made by management without the reliance on employees experience (Hofstede Insights, 2018).

Secondly, validation of the information could be done by a bureaucratic procedure, this takes place in organisations where formal procedure is valued and written systematic framework followed (Schneider, 1989, 151). Validation by bureaucratic rules is often the case in cultures where the way uncertainty is managed, is through formalized procedures (Schneider, 1989, 158). This results in strictly following operating manuals and organisational policies (Schneider, 1989, 158). This is once more not expected in Denmark because of the appreciation of informal rules, as a result of the low power distance (Hofstede Insights, 2018).

Thirdly, historical precedent could determine the validation process, this happens in organisations which value traditions and have their established ways or operation (Schneider, 1989, 158). This is also likely to occur in cultures where time orientation is towards the past and the tradition is valued more than present or future (Schneider, 1989, 158). The degree of uncertainty avoidance plays a role as well, as repetition of 'what has been done' is viewed as a safe option. This is a possible validation technique valued by Danes, as there is a strong sense of national traditions, such as emphasis on Janteloven etc (Hofstede Insights, 2018). However, it would not be as a result of uncertainty avoidance, nor would repeating history be a result of feeling safer, as curiosity and change is seen as positive thing (Hofstede Insights, 2018).

Fourthly, political coalitions involve negotiations amongst individuals in the organisation in order to come to an agreement, this is often present in cultures where organisations are seen as agents whose objective is to maintain social order and gather power (Schneider, 1989, 151). Political coalitions are a way to validate emerging issues in cases where hierarchy, individual orientation and social orientation are emphasized and personal networks are means of expressing power (Schneider, 1989, 159). These organisations are more likely to interpret issues as threats (Schneider and Meyer, 1991, 309). According to Meyer (1982) organisations where hierarchy and bureaucracy are not valued, issues are more likely to be interpreted as opportunities rather than threats or crisis and therefore proactive

behaviour is more likely to take place (Meyer in Schneider and Meyer, 1991, 309). Thus, in Denmark political coalitions are not likely to be observed compared to consensus or historical precedent, due to no hierarchy focus, and the importance lies within individuals and close connections (Hofstede, 1994, 2). This means, along with the low uncertainty avoidance, that issues that have emerged are more likely going to be seen as opportunities rather than threats, which could mean that prioritization may focus on the opportunities rather than managing the threats (Schneider, 1989, 161).

Lastly, consensus takes place in cultures where issues are scrutinized by everyone involved, and the decision is agreed upon by everyone (Schneider, 1989, 151). Consensus occurs in cultures with social orientation where the emphasis is put on the group rather than the individual (Schneider, 1989, 157). This is likely to happen in Denmark due to like in Sweden, “*reliance on informal and personal interaction (social interaction) in decision-making*” (Schneider, 1989, 159), which is a result of the low power distance that has been attributed to Denmark, where employees are expecting to be part of the decision-making and relies upon (Hofstede Insights, 2018). Consensus can also occur when the significance of individual opinions leads to participation of all involved in the selected group (Schneider, 1989, 159). ‘Groupthink’ may however lead to risky behaviour “*due to interpretations such as ‘shared stereotypes’ of outsiders and ‘illusions of invulnerability’ of the group*” (Janis in Schneider and Meyer, 1991, 308).

### 5. Establishing priorities

At the very end of the strategy formulation process, priorities are established based on the organisations’ perceptions of certainty, urgency or the importance of the issue (Schneider, 1989, 151). Ultimately, these perceptions will lead to some issues receiving instant attention and others being put on hold. The perception also affects the amount of resources designated to the issue (Schneider, 1989, 151).

Firstly, issues may be prioritized depending on their importance. Social or task orientation determines this importance. Some cultures put an emphasis on the social aspect rather than solely focus on the task. This manifests itself in favouring one's social and financial security, satisfaction and overall employee welfare over strict striving for reaching organisational goals (Schneider, 1989, 159). These

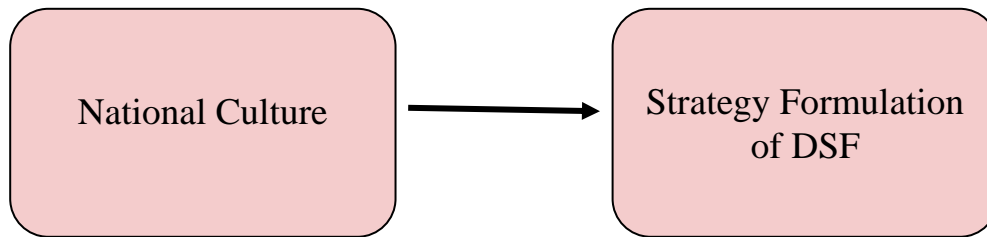
traits are usually found in societies with high degrees of solidarity such as Sweden (Schneider, 1989, 159). High social importance is also prevalent in Denmark, since there is a feminine society, where employee satisfaction is important and a good work life balance expected (Hofstede, 1983, 85). On the contrary, task orientation takes place in cultures where maximization of profit and efficiency is a priority (Schneider, 1989, 159).

In regards to urgency, time perception plays the most important role. When a culture is oriented towards the future, urgency grows and vice versa (Schneider, 1989, 159). On the one hand, time may be viewed as linear, and monochronic which results in a sense of urgency due to the perception that if time is not used efficiently it is wasted and therefore opportunity is potentially lost (Schneider, 1989, 159). However, when time is viewed as polychronic, ongoing and expandable, the sense of urgency decreases (Schneider, 1989, 159). In Denmark there is a focus on the future rather than the past, meaning that the urgency will grow along with a linear view on time (Schneider, 1989, 159; Hofstede, 2010, 239).

Uncertainty seems to play a significant role in all the individual steps of strategy formulation and establishing priorities is not an exception. The way uncertainty is either avoided or managed determines which issues are prioritized (Schneider, 1989, 160). If the issue and the potential solution carries a high uncertainty amount, it will most likely be put on hold until more information is selected to be interpreted and validated (Schneider, 1989, 160). Organisations will also be more likely to go through with short term solutions as a way to manage uncertainty instead of the long term ones which are uncertain (Schneider, 1989, 160). In Denmark, uncertainty is not managed nor avoided, so solutions are more likely to be pushed through and not be influenced by the uncertainty behind it (Hofstede Insights, 2018).

## **Theory summary**

Having explained the 'x' and 'y' in this research, the next section is dedicated to explore the resulting effect - according to theory, that 'x' - the Danish culture, will have on 'y' - the strategy formulation. Thus our research may be drawn as following:



*Figure 3: Hypothesised relationship*

In the last section we discussed the extent that culture can have on each aspect of the different five steps of strategy formulation. The figure below describes our understanding of how the different elements of the five steps that Schneider (1989) presents are combined with the culture characteristics, that should be influencing those steps and finally which of Hofstede's dimensions (Hofstede Insights, 2018) it would relate to. The highlighted yellow boxes illustrate how the NGOs formulation steps should be observed in the survey, according to Schneider (1989) and Hofstede's (Hofstede Insights, 2018) theory. Thus, this research intends to determine whether or not the MOs at PK actually undergo the steps as the theory predicts, meeting our predictions and if they do, then if there is a positive correlation between the Danish characteristics and the resulting strategy formulation.

STRATEGY FORMULATION			NATIONAL CULTURE	CULTURAL INFLUENCES
	Controlling	Adaptive		
<b>Identifying issue</b>				
<b>Scanning</b>				
	Search & active	Monitor & reactive	Relationship with environment, control activity and uncertainty	Uncertainty avoidance
	Focussed	Broad		Uncertainty avoidance
	Systematic	Non-systematic		Uncertainty avoidance
<b>Selection</b>				
<i>Type of info</i>	Quantitative	Qualitative	Nature of truth and reality (facts vs principles) & uncertainty avoidance	Power distance & Uncertainty avoidance
<i>Sources of info</i>	Objective & Impersonal	Subjective & Personal	Task vs social, power and status, individual vs group	Individualism & Power distance
<b>Interpretation</b>				
	Analytic	Intuitive	Truth and reality, uncertainty avoidance	Uncertainty avoidance & Long-term orientation
<b>Validation</b>				
	Personal edict	Consensus	Hierarchy, uncertainty avoidance, time orientation, individual vs group, task vs social orientated	Power distance & femininity
	Bureaucracy	Political		Power distance
		Historical Precedent		Long-term orientation
<b>Emergent Issue</b>				
<b>Priorities</b>				
	Urgency	Less urgent	Time orientation	Uncertainty avoidance & Long-term orientation
	Certain	Less certain	Uncertainty avoidance	Uncertainty avoidance
	Task concerns	Social concerns	Task vs social	Femininity

*Figure 4: Table of our predicted relationship*

Thus, in the MOs, our findings should confirm these predictions in order for the theorised causal relationship to hold true:

- Scanning would be reactive, broad and non-systematic due to uncertainty avoidance.
- Sources of selected information would be personal and subjective due to power distance, uncertainty avoidance and individualism.
- Type of information would be of qualitative nature due to power distance and long term orientation.
- Interpretation would resemble inductive and intuitive model due to uncertainty avoidance and long term orientation.
- As a validation mechanism, Danes prefer consensus, historical precedent and political coalition due to all 5 cultural dimensions.

- In terms of establishing priorities, we predicted that Danes would prioritize the short term issues in the state of urgency while deeming the social issues more important than the task due to femininity, uncertainty avoidance and long term orientation.
- Danes would prioritize the social issues over achieving the task due to femininity and lastly, there would be more sense of urgency due to uncertainty avoidance and long term dimension.

Having understood how the two main theories interact and the relationship that we predict, we will shortly consider some of the implications to the theory and expected findings on the basis of studying an NGO. It is important to note that Hatten (1892) uses the term not-for-profit (NFP) rather than NGO. As explained by Martens (2002), many theorists use the term NFP and NGO interchangeably, and looking into Hatten's theory, we can assume the theory would also apply for NGOs (Hatten, 1892).

#### NGO implications to our research

According to Hatten (1892), NFPs' first problem with strategic management<sup>7</sup> is goal setting. It is almost impossible for NFPs to start by creating a statement of their overall goals, although there is a small financial survival goal, many of the goals that NFPs work with are not directly measurable (Hatten, 1982, 91). This is further complicated by the difficulty of pinpointing precisely who are the receivers of their social movement, and the diversity of values of the individuals within the organisation (Hatten, 1982, 92). Thus, strategies often begin with identifying the functional practices and use them to mould the current strategies (Hatten, 1982, 93). This may be an indication as to where information in the strategy formulation phase is sourced from, and/or may be an indication as to how the organisation evaluates current information and ideas for future strategies. Moore (2000) argues that 'looking-back' at old strategies is highly expected in NFPs as they have to make sure that the strategy is feasible, but still allows the organisation to create value and be sustainable, resulting in a large focus on the existing capabilities of the NFP (Moore, 2000, 184). This could hint at a historical precedent that Schneider (1989) describes to be important to the strategy formulation of NFPs.

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<sup>7</sup> We believe that the resemblance to Hatten's (1892) definition of strategic management and Schneider's (1989) definition of systematic formulation is close enough that we can take note of some inputs put forth in Hatten's theory. It seems that Hatten (1892) believes, that strategic formulation is part of strategic management but not the only element (Hatten, 1892, 91).

Once a strategy has been idealised it must be evaluated against the NFPs' environment. Hatten (1982) argues, that NFPs' environmental evaluation is very similar to those in the profit making sector (Hatten, 1982, 99). The one important difference seems to be that since NFPs cannot narrowly define their mission, they also have to view their environment more widely, otherwise they risk losing relevance to the chosen community they are trying to help (Hatten, 1982, 98). The NFPs have to be very careful not to have strategies and missions that are too extreme as it may not only alienate the community that they are intending to help and get support from, but also members and possible financial backers that are a more 'moderate' (Doh & Teegen, 2003, 207).

The strategy also has to be evaluated with the NFPs' resources in mind. The quality of financial resources available to NFPs are more varied than for-profit corporations, and the choice of funding may determine the impact the NFPs can have, yet it can also influence the strategy itself (Hatten, 1982, 100). Just like for-profit organisations, NFPs cannot raise funds through taxation unlike governments (Moore, 2000, 191). So an NFP may turn to donations, and the use of donations may also become a strategy for the NFPs to remain connected to a community (Hatten, 1982, 100). Moore (2000) acknowledges the need for donations as an income, yet argues that charitable contributions are often not the largest source of revenue for NFPs (Moore, 2000, 185). NFPs risk having to 'attend' to the desires of their donors, which can severely affect their strategies and results, especially the priority establishment in the strategy formulation (Hatten, 1982, 103). However, this may not be as much an issue when looking at a membership NGOs or NFPs, such as DSF, as they get some revenue from the membership fees<sup>8</sup>, and so may not be as dependent on donors which can liberate their strategies.

Personnel is also a consideration that NFPs have to take into account, as they are considered to have highly inelastic demand for management and professional services, where operating expenses often threaten the financial survival (Hatten, 1982, 101). NFPs are highly dependent on volunteers, yet with the recent increase in inflation, it has limited the availability of the main source of labour (Hatten, 1982, 102). Doh and Teegen (2003) explain how the makeup of the 'employees'<sup>9</sup> of an NGO can influence the strategy of the organisation (Doh & Teegen, 2003, 207). Monolithic NGOs - NGOs which

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<sup>8</sup> See appendix 1

<sup>9</sup> By employees we mean both people who are volunteers and paid employees within the NGO/NFP



are made up of individuals and even other organisations which are similar and share the same interests, can advocate more powerfully and effectively as credibility and legitimacy derives from the uniformity of people (Doh & Teegen, 2003, 207). Thus, we need to discuss whether or not the universities that make up DSF are similar enough to make DSF a monolithic NGO. It may also be harder to satisfy members within the organisation if they are not similar enough, which could affect the need to ensure tasks are achieved more than everyone being content - it may be impossible to satisfy everyone if members differ too greatly (Doh & Teegen, 2003, 207).

Other factors that can influence the strategy formulation of NGOs, can be the NGO's size, focus and mission, structure, internal consistency and the relationships to other NGOs within the same industry or with the same mission (Doh & Teegen, 2003, 208). A factor that affects some but not all, is the temporal aspect of the NGO, whether or not they are the 'first movers' of the mission within the industry (Doh & Teegen, 2003, 208). All of these factors not only can affect the strategy formulation it can also affect setting the agenda and the success of the NGO (Doh & Teegen, 2003, 208).

Another aspect that makes the NGO's strategy different from for-profit corporations is the ability to change the mission of the organisation once the NGO has acted on it (Moore, 2000, 191). This constraint to stay true to the established mission, can arise from the reliance on donors and members for the operation of the NGO (Moore, 2000, 186), or from the use of volunteers and interest based 'employees' - with too much change, the organisation may lose the support and motivation from its 'people' (Moore, 2000, 189). The constraint also arises from the common laws and state statutes that prohibit NFPs from changing their mission or strategy without the approval of the state (Moore, 2000, 191). These constraints could result in the way in which validation of opinions and choices is formed within the NGO, possibly historical precedent is more important than consensus which is predicted in accordance with the theory in the figure 4 above.

Lastly, when considering that our case is an advocacy NGO, Doh and Teegen (2003) point out that these types of NGOs must communicate effectively in order to achieve their goal, and more so than other types of NGOs (Doh & Teegen, 2003, 213). Using information is very important to NGOs, as it is their competitive advantage, and using information in new ways is the way, in which they can promote

their ideas (Doh & Teegen, 2003, 213). Thus, information becomes an invaluable resource to an NGO, secondary to their identity (Doh & Teegen, 2003, 215). This is important to consider, when inspecting the strategy formulation steps, information search might be proactive than we have predicted, along with more systematic, in order to be better informed and to use the available information in novel ways.

The implications are important to consider when we discuss our results. We decided not to test for these implications, as the interest of this thesis is not to understand the effect of NGO on strategy formulation, but the relationship between culture and strategy formulation of an NGO. We thus will refer back to these NGO considerations in the discussion, to explore if these NGO specifics can help explain any possible deviances of what we found from what we had predicted. In the following section we explain how we gained our findings that lead to this discussion

## Methodology

We have come to the fourth step in the theory testing process, collecting relevant data before analysing the data, and assessing the theory (De Vaus, 2014, 10). We are descending the ladder of abstraction, to a point where we are moving from the abstract concepts developed in the theory section to our questionnaires (De Vaus, 2014, 45). This section will start by examining the epistemological stance that influenced this research, and then will go into detail about the data collection tool used. At the end, ethical and reliability and validity considerations will be made.

### **Epistemological stance: Critical Rationalism**

This thesis has taken upon the epistemological stance of critical rationalism. Critical rationalism stems from positivism, sharing many generalities, except from its form of start point of epistemology - critical rationalism relies on knowledge a posteriori rather than a priori, meaning a deductive approach will be taken in this research (Engholm, 2014, 77). The main purpose of studies using a critical rationalism point of view is to create laws about causal relationships though an empirical based analytical approach, in order to create predictions (Engholm, 2014, 70).

This thesis took on a critical rationalism as soon as the research question was created, as we are looking at the causal relationship of culture and strategy formulation. As Engholm (2014) explains, we are trying to provide an explanation for why the strategy formulation (the phenomena) of the NGO is the way it is observed, as a way to provide factors as to why the phenomena is functioning as it is. Durkheim (1895) explains, that using critical rationalism, allows researchers to explore the concept of functionalism, explaining the Danish culture in terms of the role it plays in enabling the NGO's strategy formulation to exist as it does (Durkheim in Engholm, 2014, 77). It is important to state here, that the nature of the research question shaped the philosophy of science, as we are looking into the relationship, or the effect one has had on the other. Had we decided to understand why the causal relationship exists or the levels of understanding of the relationship, a viewpoint of phenomenology or pragmatic philosophy of science would likely have been used.

## Why hypothesize?

Engholm (2014) describes how according to Karl Popper, one cannot make general statements based on conclusions from empirical observations, which is the process that positivism uses through induction<sup>10</sup> (Karl Popper in Engholm, 2014, 79). Researchers cannot determine truth definitely through the process of induction, since alterations in situations or experiences may occur, which can make the truths rejectable (Engholm, 2014, 79). This paper follows the belief shared by Popper (Engholm, 2014), that all observations are theory-based, moving from the theory and general established laws to our case - this is the process of deduction (Popper in Engholm, 2014, 79). Validating the theory through empirical conditions in a form of a hypothesis. A hypothesis allows us to speculate, resulting in the case specific hypothesis:

*“The strategic formulation steps that the MOs undergo during the PK process is a reflection of the Danish national culture”.*

As a demand of deduction, the hypothesis was worded in order to be either confirmed or rejected, and can be considered a strong statement, as researchers can make generalisations about this specific case, rather than the Danish population at large (Engholm, 2014, 80). The NGO was included in the hypothesis for this reason, as we could only provide a statement about a limited number of results, yet have a reliable representation of the population (Engholm, 2014, 86). Thus the specific and final alternative directional hypothesis (Kellstedt & Whitten, 2013, 194) is as follows:

*Ha: “There exists a positive relationship between the Danish culture and choice of strategic formulation found within the MOs”.*

A positive relationship means that Danish culture had the ‘correct’ effect on strategic formulation - as predicted in figure 4. Alternative hypothesis is specifically needed in order to undergo OLS regressions that are used to test the bivariate linear relationship that this research intends to (Kellstedt & Whitten, 2013, 184). By having the alternative hypothesis we are also able to formulate the null hypothesis - a hypothesis that claims independence of researched variables and states that there is no relationship between the phenomenon - strategic formulation, its factors and Danish culture (Kellstedt & Whitten,

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<sup>10</sup> Induction is the process of observing empirical evidence and being able to create general laws or theories from what is observed in the situation (Engholm, 2014, 70).

2013, 4). The null hypothesis is what the results need to reject, as it would suggest that the alternative hypothesis can be confirmed as true.

*Ho: "There exists no relationship between the Danish culture and strategic formulation found within the MOs".*

## **Results of Critical Rationalism**

As a result of having the epistemological approach of critical rationalism, one consideration that influenced the methodology is the view on unity of science (Engholm, 2014, 70). According to critical rationalism, the results that are produced in any research should be able to be reproduced by others under the same conditions, so rigorous methods had to be used, which is why we turned to quantitative-orientated approach rather than qualitative (Engholm, 2014, 70). Since we are not trying to create general laws, due to the hypothesis, but rather laws in this case, we believe that we follow this condition of critical rationalism, and we remain reliable. We also believe that if the same research, with the same conditions, was conducted in another Danish NGO, similar results would be found.

A second consideration is that the results and methodology must be value free, meaning that the results should not make ethical judgements nor can it be used for political movements (Engholm, 2014, 71). The researcher's job is to identify the causal relationship, not to interpret the results, as the phenomenon and causal relationship should exist independently of the researcher (Engholm, 2014, 70). Reading the theory by Schneider (1989), the theory argues that there is a relationship, and thus we believe that even without our involvement and without interpretation it would still exist. This also relates to another consideration, that critical rationalists see individuals as rational and driven by what may be optimal to them (Engholm, 2014, 71). According to Hofstede (1983), culture becomes a mental program for individuals, which means that the hypothesis should be true since Schneider (1989) argues that a certain national culture will result in a certain strategy formulation that allows for the best adaptation to the environment (Schneider, 1989, 161). If individuals are rational, then they should respond according to what is best depending on their culture. We decided to conduct an explanatory research, as we are searching for the consequences of the Danish culture on the strategy formulation of the MOs, rather than solely what kind/type of culture they have or what strategy formulation they have, moving away from identification (De Vaus, 2014, 22).

## **Quantitative method: Survey**

We chose to use surveys, as it is characterised as a systematic and structured set of data, which would respond well to both the research question and use of hypothesis. This is because survey research is a research form, that puts emphasis on causes of a phenomenon through comparing data cases (De Vaus, 2014, 5), with Danish culture seen as the cause and using comparisons of responses from different MOs. Also, the survey research, as characteristic of traditional survey research, is used in drawing causal inferences<sup>11</sup> by comparing various characteristics of the responses from the PK attendees.

We conducted online self-administering questionnaire that we advertised on different Facebook pages, Facebook newsgroups, chat groups and sent via emails to the leaders of the MOs. The use of Facebook and social media was done, as DSF could not distribute our questionnaire for us, as the management believed that they would be misusing the information of the past PK participants, and they could not give us the email addresses, as they would be giving away information without consent. The use of Facebook and emails allowed us to post the link to our online questionnaire on various pages so that we would only get responses from individuals whom are or have been part of MOs. Although it means that we are lowering the randomisation of our sample (DeVaus, 2002, 71), since we limited respondents to individuals within MOs, we believe it would be irrelevant to this research to have 'just' anyone answer to our questionnaire. All the posts made, were done with a small general instruction, that mentioned this research, the time frame and the promise of anonymity. We had the luck to be allowed into one of the MOs social circles, in order to advertise the survey.

We believe, that Facebook and emails allowed us to reach more MOs, as they are geographically scattered all over Denmark, and thus would not be able to be reached in face-to-face interviews, and if the respondents were only from the MOs we could physically reach, we would be underrepresenting the population. The use of online questionnaires did lower the bias in the responses, as the respondents did not feel pressure from us as the researchers, to answer in a certain way (De Vaus, 2014, 99). Respondents were also assured of anonymity and therefore were aware that they would not be judged based on their answers. The only problem we encountered with the use of an online survey was that it

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<sup>11</sup> Evaluation of whether one variable affects another (De Vaus, 2014, 298).

was sent out during a period of time that most students are on summer vacation, which meant that we were going to fight against a possibility of a low response rate. For this reason, the choice of an online questionnaire seemed even more appropriate, as it could be done on the respondents' phone or other devices at a time that was most convenient for them.

Before sending out the survey, we conducted a pilot test of the questionnaire in order to ensure that the questions were clear, precise and that there was no leading wording<sup>12</sup>. This led to rewording a few questions, which increased the reliability of our questionnaire. We decided to shorten questions to avoid confusion, and lower the amount of questions that included the word 'not', as it can cause confusion to the respondents (De Vaus, 2014, 97). Pilot testing is also extremely important, when there is only one question per concept, in order to make sure that the questions are valid (De Vaus, 2014, 49).

## **Describing our sample**

Precision, external validity and leverage in analysis is achieved through gathering a representative sample, which captures the broadest possible proportion of the population (Gerring, 2012, 86). In this paper we are striving to form generalizations from the analysis as implied by critical rationalism, and therefore it is important that our sample is representative of the population. Random sampling is the most appropriate way to get a reliable sample, as it implies that there is equal possibility for each respondent to participate in answering the survey (Gerring, 2012, 87). As mentioned above, respondents were reached via Facebook pages and email. There is a chance that the non-participants did not answer the survey for variety of reasons. They could be busy, on the vacation or uninterested. This should not be an issue unless there are characteristics that the non-respondent group share, that would skew the results in case they participated in answering the survey (De Vaus, 2014, 81).

De Vaus (2014) argues, that there is no right amount of responses, it depends on a lot of factors, and ultimately we need a large enough sample to be able to reject the null hypothesis (De Vaus, 2014, 77-78). We believe that our sample should only include individuals who had been to PK and not just

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<sup>12</sup> A leading question is “one where either the question structure or wording pushes people to provide a response that they would not have given had the question been asked in a more natural way” (De Vaus, 2014, 97)

individuals that worked with the MOs within their own local unions. Thus, we conducted a stratified sample method, as we chose to have past PK participation as the stratifying variable to qualify respondents to participate in this research. This may have lowered slightly the randomization of our data, yet there was no other exclusion variables to our respondents, so we believe the data was still random enough to meet the need of ‘no researcher involvement’ set by critical rationalism (Engholm, 2014, 84). There was no sampling bias, as there was the same probability for every individual to respond to the survey. We subsequently screened the data after the collection step to make sure that the respondents were ‘qualified’ for this research. We decided to screen for nationality, dropping any responses that were non-Danish, as we were interested in the responses of people who identified themselves as Danish. As a result, we had to drop as the respondent.

Size of the sample (N) must be accounted for whether it is large or small (De Vaus, 2014, 77). It is said that large samples are superior to small samples (Gerring, 2012, 88). De Vaus (2014) explains that a sample larger than 10% of the population is often considered the minimum in order for the sample to be sufficient (De Vaus, 2014, 78). De Vaus (2014) also claims that small samples may be equally as accurate and representative as large samples in cases when “*the sample size represents a sizeable proportion of the population*” (De Vaus, 2002, 81). In our case, population is only about 100 individuals<sup>13</sup> as we are interested in very specific case. We gathered 41 responses, however, as mentioned earlier 1 individual was dropped from the data set because the individual was not from Denmark. Subsequently, we ended up with a sample size of 40, which makes up exactly 40% of the population and therefore it cannot be said to be unrepresentative of the population. We believe that we had such a high response rate because of the population being studied, whom all are students involved in volunteering. DSF and the MOs generally also have an organisational culture of helping others and being generally very involved in improving the education of all. One issue with a smaller sample size may arise from the issue that STATA may not deem some relationships and correlations significant due to the low sample size depending on what tests are used (Agresti & Finlay, 2014, 227). The best way to account for this, is to conduct statistical tests, which do in fact account for small sample size (Sønderskov, 2015, 131).

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<sup>13</sup> In the last PK, spring 2018 there were 100 MO delegates (See appendix 1).



It is important that a researcher has an idea of the population's characteristics in order to be able to compare it to the sample. Ideally the difference between the characteristics of the sample should not deviate too much from the characteristics of the population (De Vaus, 2014, 80). We have been able to obtain some characteristics of the population from the informal interview with a member of DSF executive board. The central statistics are age, gender distribution and university. The age average in our sample is 23.8 which is expected due to the fact that it is a requirement for the participants of PK to be a long-term university degree students. In regards to gender, in the spring PK 2018 there were 52 male participants (52%), while the rest are considered non-male. We provided the respondents with four categories in the gender question; male, female, prefer not to say and other. In our sample, 22 out of 40 participants are male which adds up to 55% of the sample<sup>14</sup>. This is only 2% higher than the population's proportion of males, so we believe that it still is a good representation gender division of the population. When preparing the raw data we had to recode this variable into a 'dummy variable'<sup>15</sup>, meaning that we had only 2 categories where value 1 was male and value 0 was non-male. The non-male category consists of 17 females and 1 respondent who preferred not to define their gender.

University distribution is quite important to control for in this research, as it is interesting to examine if we can find patterns in attitudes of groups of individuals based on the university they attend. The table in the appendix 3, which portrays the distribution of students across the participating universities. It is clear that the sample differs from the population. CBS Students in the population make up exactly 13% of all the universities present, whereas in our sample CBS Students make up almost 32.5% of the sample. This may be due to the fact that we know a lot of these people personally, and had access to their personal social sites on Facebook, so they are more likely to be willing to help us out and fill out the survey, whereas it is much easier for students from other universities to simply disregard the survey. CBS is also the only university which is fully represented in the sample when comparing the distribution to the population among students from Aalborg University, which has a positive difference of 0.5% in the sample. Other than CBS, all the remaining universities are underrepresented in the sample where Copenhagen University and VIA Horsens University are the two universities with the

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<sup>14</sup> See appendix 1 and 3 for comparison of the sample and population characteristics

<sup>15</sup> Dummy variables *"represent nominal or ordinal scale variables, where 0 and 1 represent two different categories/ levels of such variables."* (Sønderskov, 2015, 26)

largest negative difference in representation and that is of -6%. This difference in distributions may cause skewness in the analysis if this control variable - universities, can influence results eg. if CBS Students which makes up a third of the sample, has a different attitude to any other university. This will be accounted for by examining percentages instead of absolute values. In the analysis, we will also test for this by inspecting the control variables' power.

## The choice of having a scale

Our questionnaire consists of 28 questions, which were mostly belief questions, to understand how they believe they underwent the process of strategy formulation, and a few attribute questions in the beginning to gain information on the respondents such as; age, which MO they belong to etc. These attribute questions were used as control variables in the analysis. The belief questions elicited mostly scaled answers, with a few short answers for the attribute questions, such as what their primary position was in DSF, in order to make sure that all the questions were answered in the same way at all times in order to meet the reliability demand (De Vaus, 2014, 94). The scale format was horizontal, where we provided all the possible answers, to make it easier and quicker for respondents to answer, which is important in self-administered questionnaires (De Vaus, 2014, 99). This would lower researchers interpretation of answers - the online survey codes the answers so we would not be directly involved, and it would mean less pressure on those that were not naturally talkative (De Vaus, 2014, 99). The scale had 8 options of 0-7, 0 indicating the lowest persuasion factor and 7 being the highest one. The reason for use of ordinal scales with 3+ categories is that it is necessary to have at least 7 categories in order to be able to perform both bivariate and multivariate regression tests in the analysis (Sønderskov, 2015, 126). Below is an example of one of the scales.

	0	1	2	3	4	5	6	7	
Do not agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

*Figure 5: Scale used for our questions in the questionnaire.*

By choosing an 8 point scale, it allowed us to get more nuanced information than binary data, while still having a quantitative data, as more options will provide the researchers with more information on the phenomenon (De Vaus, 2014, 107). We decided to have 8 answer options on the scale rather than the 7 point scale that Krosnick and Presser (2010) argue for, as we did not want to include a middle, since we wanted to be able to code the responses as binary, and it would mean that people could not just choose the middle value due to laziness (Krosnick & Presser in De Vaus, 2014, 106). De Vaus (2014) explains how a middle value can cause respondents to sit on the fence with their answers, and when it is self-administered there is no pressure to not have an opinion or time pressure to give a quick answer, so respondents have to ‘take a side’ (De Vaus, 2014, 106). For the same reasons we have decided not to include a ‘don’t know’ option. The ethics of not having a ‘don’t know’ option is discussed later. It provides us with mostly ordinal information, data which can be ordered from low to high. In the statistical program STATA, we made sure that we had all the data pointing in the same direction<sup>16</sup>, so that 7 is what was expected or desired according to the theoretical predictions.

## **Our questions**

The survey began by providing the respondents with some general instructions. We firstly introduced ourselves briefly, and shared the overall goal of the research. We tried to make sure that it was not apparent what kind of answers were ‘right’ or ‘expected’ in the introduction, to not skew the validity of the data. In the general instructions, we once again confirmed anonymity, and what their data would be used for and reminded them that answering was voluntary to ensure ethicalness of our questionnaire.

We then had our first section instruction that allowed us to prepare the respondents to make considerations about themselves in general terms. We told them we wanted to get to know more about them. We then asked three attribute questions about their characteristics, age, gender and nationality. We allowed respondents of all nationalities to respond, but excluded non-Danes from our analysis as we were interested in how the Danish national culture has an effect on strategy formulation. Although we had previously discussed between us what defines a Dane, we decided to let the respondents determine themselves if they were Danish, and if they responded with a non-Danish nationality they would not be under the Danish national culture influence. Questions 10-13 were also attribute

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<sup>16</sup> See appendix 4 for redirectioning process

questions, but we placed them further in the questionnaire as we wanted a clearer flow of the questions. Most of these questions were short answer questions, yet some, like question 10, were a multiple choice answer, where they had to pick their university. We decided to recode some of their short answers, such as if they had answered that their primary role in DSF was “*I represent my university at PK*” we re-coded it to Delegate. We did this in order to be able to better handle the variety of answers that were very similar in the data grid. We chose not to provide options, as we wanted respondents to still have the freedom to identify themselves and their roles.

Questions 4 - 9 and question 14 were belief questions about the Danish culture as described by Hofstede (Hofstede Insights, 2018). We wanted to make sure that we could determine that the Danish culture was present within the MOs, in order to test whether or not there was a causal relationship. If we could not conclude that ‘x’ existed, then we could not examine the relationship between ‘x’ and ‘y’. We strived for at least one question per cultural dimension, however we had two questions surrounding the dimension of power distance and uncertainty avoidance, as we felt those two dimensions could not be covered without having a very long and complicated question.

For these questions, our goal was not to necessarily get a 7 on every answer. As argued in the theoretical section, determining whether or not a dimension has been fulfilled does not necessarily need a 7. Denmark is said not to score 100% on any of the dimensions, instead the dimensions vary in their percentages and so concluding that dimension is not fulfilled unless it gets a 7 is incorrect. Instead we believe that the dimensions can be concluded not to be very strongly observable in the data if there is an average of 3 or below (one of the questions needed to be recoded/redirected in the analysis to go in the same direction, so here a 0 is desirable and not a 7, so here a 3 or below indicates a strong presence of the dimension). Although we believe that the higher score the better, depending on how present the dimension should be according to Hofstede’s scoring of the Danish dimensions, some dimensions can be fulfilled with a 4 or 5 etc. The figure below indicates what average score on the scale each dimension needs to get, in order for the dimension to be fulfilled, along with the direction they should go in and the question<sup>17</sup>.

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<sup>17</sup> See appendix 37 for the full questionnaire

Dimensions	Uncertainty avoidance		Power Distance		Individualism	Femininity	Long-term
	Q9	Q4	Q14	Q5	Q6	Q7	Q8
<i>Direction hoped</i>	0	7	7	7	7	7	7
<i>Which is most predominant 1-5</i>	3	3	2	2	4	1	5
<i>Average the answers should be close to</i>	2	5	6	6	4-5	6-7	4

*Figure 6: The relevant averages according to their predominance in Danish culture*

After questioning culture perceptions, we had our second section instructions, where we asked the respondents to consider the process up to and during PK when answering these questions. We instructed them to consider the questions from their own perspective; how they and their MOs dealt with information, evaluated opinions and priorities and how they came to their decisions. We decided to include these instructions here to provide clarity for the upcoming questions and provide some guidance to what the questions were questioning. This was also a result of the pilot testing, as it would allow the respondent to self-administer the questionnaire easier.

Questions 15-28 dealt with questions about the different steps and elements of strategy formulation. For each of the 5 steps of the strategy formulation we had at least one question to cover the elements that would indicate whether the answers were more adaptive or controlling. For example,

*“To what extent do you agree with the statement: In order to come to a decision in the group a consensus is necessary?”*

This questioned how heavily the individuals felt that consensus was present when their MO made decisions on amendments and voting. For this question, answers of 4 or higher on the scale would coincide with what is hypothesised by Schneider (1989) as a result of what Hofstede Insights (2018) has characterised Denmark’s power distance and femininity dimensions to be.

Finally, we included a question for feedback, which was a long answer option, so that respondents could send us feedback and indicate any confusion if any had been present. It allowed us to gain more information of how the respondents had interacted with the questionnaire, to see if there were any questions that were misunderstood by many, which could affect the reliability of the answer to that question.

## **Ethics of the research**

An element that we had to keep in mind during the data collection was ethical and moral considerations. American Educational Research Association (AERA) stresses that *“reporting of research is expected to reflect the highest standards of ethical practice both with respect to human participants and with respect to the execution of professional conduct and judgement in research”* (AERA, 2006, 39). Thus, one of the considerations we made was, as mentioned above, the assurance of anonymity for the respondents and that response was voluntary. This was said in both the posts and emails, when the link was sent out and once again it was stated in the general instructions of the questionnaire. One aspect that was not considered, was that the questionnaire and the instructions was written in English, and although all respondents are university students and Danes are known for their high proficiency in English (Education First, 2018), providing the respondents with a Danish version could have maximized their understanding of the questionnaire. We do think that the anonymity and confidentiality made it more comfortable for the respondents to be part of this thesis, as they were assured that their leaders of their MOs would not know how they answered nor would DSF and so there would be no negative repercussions from their participation.

Another ethical consideration we took into account was the survey questions, considering the idea that researchers should make sure that their research causes no harm to the respondents (De Vaus, 2014, 58). We made sure that there was no psychological harm to the respondents through distress or embarrassment that can be caused by the questions. The questions were all formed so that the respondents should not feel attacked for answering ‘wrong’ and we tried to make sure that the questions would not make the respondents feel any uncomfortableness at the process they had been through with their MO. We also decided to make sure that the strategy formulation should be

interpreted as a neutral concept, and we made sure that respondents did not feel excluded just because they thought differently or were not Danish.

However, one issue that could potentially be seen as an ethical issue as well as a reliability issue, was that we did not provide respondents with the option of answer 'don't know' or 'no answer'. This is one of the techniques suggested for researches with small sample size as non-response could result in large margin of error (De Vaus, 202, 84). Not providing a 'don't know' answer can cause frustrations if the question is something they have not developed an opinion on or something they cannot or do not want to answer (De Vaus, 2014, 96). It can also cause higher non-response levels, yet we believe that a 'don't know' answer, would again incite laziness in the respondents considering we asked them to do it in their free time and summer break. Also, we had the choice to make some or all of the questions mandatory to answer, which we did not, so the respondents still had the option not to answer if they felt uncomfortable answering.

## **Validity and reliability**

According to De Vaus (2014), validity is acquired when the variable is able to measure the concept that it was created to measure (De Vaus, 2014, 51), and reliability is the ability of researchers to reproduce the study under the same conditions and find similar results. (De Vaus, 2014, 48). The use of pilot testing was a way to test both these measures. It allowed us to identify two questions that were not reliable as they were answered slightly differently than what they were intended to measure, due to incorrect wording. When we asked the people who were part of the pilot testing why they answered so differently, it became clear that the bad wording had also affected the validity of the question as it did not measure the use of bureaucracy and political systems in group decision making. The language was therefore simplified and more to the point, at this point those questions regained validity. We had also considered whether multiple questions should be included to measure the different elements of the strategy steps, as it would increase the reliability of our research (De Vaus, 2014, 50). However, very often there is little reason for asking more than one question, and there is a large risk of becoming repetitive which can affect the way that the respondents answer the next questions (De Vaus, 2014, 50). Another way in which the reliability was increased, was by having transparency in our research (Kvale, 2008, 327). All the relevant sources of information was recorded and documented; our questionnaire,

data, the do file describing all of the statistical steps, along with analytical reasoning, which would allow others to do the same research as us, and replicate it to get the same results. All the transparency efforts have been recorded in the appendix.

Having considered why we are testing this phenomenon in our theoretical framework, and how the gathered data tests the phenomena and relationship, our thesis now turns to our analysis and the actual tests that allow us to gain the findings which are needed for theory testing.



## Analysis

As learning about population is the ultimate objective of any study, this thesis intends to do this by engaging in both descriptive<sup>18</sup> and inferential<sup>19</sup> statistics by both describing the sample using simple statistics and also be able to infer and predict phenomena based on our results (Agresti & Finlay, 2014, 4). In this section we will address what De Vaus (2014) describes as the theory testing phase, analysing the data to see how much the theory and hypothesis can be supported by the real life examples gathered through our questionnaire (De Vaus, 2014, 15). In order to conduct the analysis, a statistical software called STATA was used and the data gathered from our questionnaire was imported from an excel sheet. As mentioned in the methodology one respondent was excluded from the study as they responded with another nationality than Danish. The do-file in appendix<sup>20</sup> can be run and inspected to see and recreate the steps that were undergone to gather the findings that will be described in this section. The analysis intends to address our research question by confirming the alternative hypothesis and reject the null hypothesis.

*Ha: "There exists a positive relationship between the Danish culture and choice of strategic formulation found within the MOs"*

*Ho: "There exists no relationship between the Danish culture and strategic formulation found within the MOs".*

The analysis will start by listing our main findings, so that we can go more into depth once a frame has been created. The analysis is structured in a chronological order as we firstly describe the raw data preparation, this process does not yield any test results but is still a crucial part of analysis. Then the presence and the strength of Danish culture will be examined, in order to test whether or not the Danish culture has a stronger relationship with adapting or controlling extremes of Schneider's theory. The next part of the analysis will analyse in detail the individual tests that were conducted in order to test

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<sup>18</sup> The main goal of descriptive statistics is reducing *"the data to simpler and more understandable forms without distorting or losing too much information"* by the use of tables, graphs or averages (Agresti & Finlay, 2014, 4)

<sup>19</sup> Inferential statistics is used when *"data are available only for sample but we want to make prediction about the entire population"* (Agresti & Finlay, 2014, 4).

<sup>20</sup> See appendix 38 for our do file

whether or not the cultural dimensions do in fact have an influence on individual strategy formulation steps as the theory claims. Lastly, the control variables will be examined and test various assumptions that may be made about gender, age, university, one's position and the amount of times one attended PK, exploring what effect these variables can have on our responses.

## **Findings:**

- Finding: Danish culture is present in the MOs when looking at the raw data.
- Finding: The level of femininity is the only dimension that may be slightly below what it should.
- Finding: There exists a stronger relationship between the Danish culture and an adaptive strategy formulation than a controlling strategy formulation.
- Finding: We can reject the null hypothesis.
- Finding: The p-value of the regression between the Danish culture index and a controlling strategy formulation index, indicates that there is no relationship between the two.
- Finding: The adapting and Danish culture regression is 'BLUE', as the assumptions were not violated so our results become legitimate.
- Finding: Other possible explanatory variables are insignificant to explain the presence of adaptive strategy formulation.
- Findings: There are no significant relationships in the scanning step and the selecting step according to their corresponding culture dimension influencers.
- Finding: There is a significant relationship between interpretation step and uncertainty avoidance and no relationship found with the long term cultural dimension.
- Finding: There are significant relationships between political coalition and cultural dimensions long term and individualism.
- Finding: There are significant relationships found between historical precedent and cultural dimensions femininity, long term and individualism.
- Finding: There is a significant relationship between consensus and long term cultural dimension.
- Finding: There is a significant relationship between the variable 'socialvtask' and cultural dimension of femininity.

- Finding: There is a significant relationship between the variable ‘futurepast’ and uncertainty avoidance.

## Raw data preparation

In order to be able to start the analysis, raw data needs to be prepared. In general, this is done by simple commands like ‘tab’, ‘sum’ or ‘codebook’<sup>21</sup>. These commands provided us with better understanding of our variables such as the mean, distribution, standard deviation, amount of missing values, minimum and maximum. As mentioned in the section above, all the questions in the questionnaire were answered on a scale from 0-7. Therefore all of the survey questions translate into ordinal variables<sup>22</sup>, which allows for OLS regression testing (Sønderskov, 2015, 286). In total six variables are not ordinal but mostly categorical. These are nationality, gender, age, university, position and question about what in particular the individuals do within DSF. These variables will later function as our control variables. It is helpful for a researcher to have this information about participants in case they significantly deviate from the variable’s mean, the researcher is able to see if their attitudes differ due to their age or low participation rate at PK or their university. First step of raw data preparation is to rename the variables.

Next step is deleting missing values. These are representative of missing answers in a questionnaire and are defined by a ‘.’ in the dataset. As STATA cannot recognize ‘.’ as a numerical value, so conducting statistical tests is not possible until these values are dropped. One way to handle this problem is by assigning a missing value with a mean of the variable (De Vaus, 2002, 156). This ensures that no response is lost whilst avoiding shifting the distribution. Another way is to simply drop the value and STATA will therefore disregard this response. A negative consequence that this action may have, is losing significant amount of responses in case particular questions were not answered by many. Another issue worth paying attention to is a situation where “*patterns of missingness is systematic, then the sample will be biased*” (Gerring, 2012, 89). In our case, there were only 3 missing values and these were dropped and therefore the likelihood of shifting the distribution due to missing values is minimal.

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<sup>21</sup> “(...) a systematic record of all the decisions made” (De Vaus, 2002, 158)

<sup>22</sup> “An ordinal variable is one where we can rank- order categories from low to high, However we cannot specify in numeric terms how much difference there is between the categories” (De Vaus, 2002, 204).

The following step is converting categorical variables such as gender, university, position into numerical variables. This is done in order for STATA to be again able to recognize the numerical value of the responses (Sønderskov, 2015, 91). For example, using the command ‘destring’, university variable was converted into a numerical variable. Since respondents could choose their university from the list provided in the questionnaire, STATA could not recognize the values so the variable cannot be tested in any way. Thus a numerical value was assigned to each of the universities, to be able to analyse this data.

The last step of raw data preparation is direction recoding. It is crucial for researcher to be able to easily navigate through the data set. We were striving for positive linear relationships meaning that respondents who answered low on variable A are also likely to answer low on variable B and vice versa (De Vaus, 2002, 246). Since all of the variables are measured on a scale where 0 is disagreement with the statement and 7 is absolute agreement with the statement, wording of the question is crucial. For example, one of the questions measuring uncertainty avoidance is worded so that the higher the response the more uncertainty avoidance. This was the variable ‘shychange’ which is worded as following: *“To what degree do you generally shy away from change?”*. However the other question measuring uncertainty avoidance was worded the other way around. This question reads: *“To what extent, do you generally feel comfortable saying I don't know or asking for help or clarification in areas of a discussion that you are unsure of?”* The higher the answer the lower the uncertainty avoidance for ‘Confidontknow’ variable. These two variables are supposed to measure the same concept of uncertainty avoidance and therefore both have to point in the same direction. Since variable ‘shychange’ was the only one having the opposite direction it was therefore recoded. This is done using the commands, generate and replace<sup>23</sup>.

## **Danish culture**

In order to analyse the relationship between the two variables ‘x’ - Danish culture and ‘y’ - strategy formulation of the MOs, we need to first determine the existence of ‘x’ as described by the theoretical framework. Since culture can be described as a concept that is nebulous and cannot be put solely into

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<sup>23</sup> See appendix 4 for a detailed recoding process, before and after of the variable ‘shychange’

one variable, we decided to construct an index<sup>24</sup> of Danish culture in order to create a better representation of the concept (Bøttkjær & Justesen, 2013, 2). This was done as we believed one could not just ask whether or not they considered themselves theoretically Danish. There are so many different ways to determine what culture one considers oneself, and we believe by using a questionnaire it would become too inaccurate, unreliable and confusing question. Thus, the index increases validity, reliability and level of measurement while avoiding multicollinearity<sup>25</sup> of the independent variables (Danish culture - 'x') (Bøttkjær & Justesen, 2013, 3).

A reflective index was constructed as the independent variable Danish culture is considered to be a latent variable, and so one cannot measure the variable directly, yet one can measure its consequences (Bøttkjær & Justesen, 2013, 5). A reflective index had to be done rather than a formative one due to the nature of the independent variable. The questions about the Danish culture dimensions, which are a reflection of Hofstede's 5 dimensions, become the latent variable and the strategy formulation is seen as the consequences of the latent variable. All the questions, 4-9 and 14, which are considered to be related to the measurement of Danish culture become part of the latent variable. The index creation required all the variables to go in the same direction<sup>26</sup>. It is important to make sure that all the responses are indicating the same type of response in order to be grouped together in the index (Bøttkjær & Justesen, 2013, 6), thus a new variable had to be created, where the direction of the variable 'shychange' was recoded<sup>27</sup>, so all of the variables went in the same direction<sup>28</sup>. We then decided which variables would represent the latent variable best by conducting matrix correlation and alpha tests<sup>29</sup>. The matrix correlation test is a way to indicate whether or not the different variables explain the latent variable, while the alpha tests are used to measure the reliability and internal consistency, with higher alphas indicating better measurements of the latent concept (Bøttkjær & Justesen, 2013, 8-10). Although the matrix correlation results were a little low, slightly below what is

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<sup>24</sup> An index is a combination of selected variables, which together can measure and explain a concept which can be difficult to measure using just one variable or question (Bøttkjær & Justesen, 2013, 2).

<sup>25</sup> Multicollinearity: "when two or more explanatory variables are highly correlated" (Bøttkjær & Justesen, 2013, 3), making difficult to distinguish the effects of each of the explanatory variables.

<sup>26</sup> All the higher values on the scales for all the questions all have to indicate a higher level of Danish culture.

<sup>27</sup> Question 9 - *To what degree do you generally shy away from change?*

<sup>28</sup> See appendix 4 for an example of the process of redirection

<sup>29</sup> See appendix 5.1 and 5.2 for matrix correlation and alpha test for culture index

recommended, we believed the alpha tests, which also were slightly below recommended, indicated enough validity in the variables of the index. We decided not to drop any variables as it would only weaken the index, and none of the variables were reverse variables. Thus an index was generated:

$$\text{gen danishculture} = (\text{decisioninvolvement} + \text{myvoicematters} + \text{shychange2} + \text{confidontknow} + \text{longterm} + \text{opinion} + \text{femininity})$$

The index was then reconfigured so that it ranged from 0-100 to see the index at a percentage. This is illustrated with a histogram below, which according to central limit theorem, was roughly normally distributed, with a slight skew to the left. With a small sample, perfect bell curve distribution is unlikely, as each of the answers have high influence on the bell curve of the distribution. In cases of small sample size, outliers/ residuals have to be accounted for and dropped in case they skew the distribution significantly.

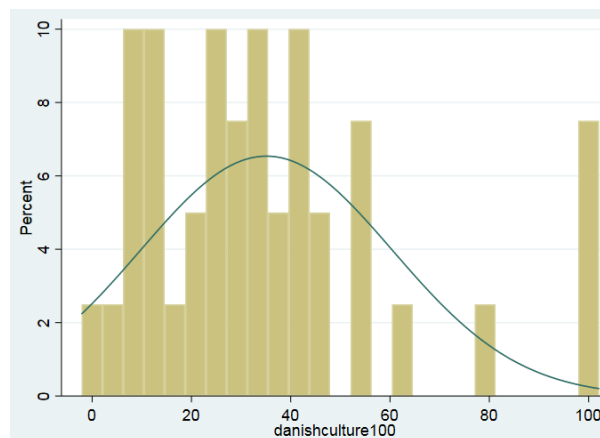


Figure 7: Histogram of the reconfigured Danish culture index

Instead of using purely an index conclusions can also be drawn from the raw data to see to which degree the Danish dimensions have been fulfilled. As mentioned in the theory and methodology sections, although we are looking for high answers for the culture questions (except for ‘shychange’), according to how predominant the dimension is theorised to be by Hofstede (Hofstede Insights, 2018), it can affect the expected mean of the dimensions. As charted below, the expected mean of dimension is actually closer to 6 and 5 than the extreme high answer of 7. The figure is made up of the no. of responses for each answer on the scale for each of the variables dedicated to culture, the mean

response, which direction the answers should be going in according to Hofstede's theory, a no. of 1-5 of how predominant the dimension should be and thus a revised expected mean on the basis of the predominance of the dimension and direction.

Variable name	Uncertainty avoidance		Power Distance		Individualism	Femininity	Long-term
	Shychange	Confidontknow	Myvoicematters	Decisioninvolvement	Opinion	Femininity	Longterm
Amount of responses of 0	9	0	1	0	5	0	3
Amount of responses of 1	10	1	2	0	3	1	4
Amount of responses of 2	12	3	2	0	3	3	6
Amount of responses of 3	4	1	3	0	6	3	10
Amount of responses of 4	0	2	1	8	11	5	7
Amount of responses of 5	4	12	4	11	5	8	4
Amount of responses of 6	1	11	14	13	2	13	2
Amount of responses of 7	0	10	13	8	5	7	4
Mean	1.8	5.375	5.175	5.525	3.575	5.075	3.35
Direction hoped	0	7	7	7	7	7	7
Which is most predominant 1-5	3	3	2	2	4	1	5
What mean should be close to	2	5	6	6	4-5	6-7	4

*Figure 8: Danish culture chart that compares the raw data mean with the revised predicted mean for each dimension*

When looking at the means of the answers and the expected means for the dimensions, most of the dimension means' are close to what is theoretically expected. The dimension that is closest to what we had expected was the uncertainty avoidance dimension with 'shychange' - with an actual mean 0.2 lower than the expected mean and 'confidontknow' - with an actual mean .375 higher than the expected mean. This indicates a strong presence of the uncertainty avoidance dimension, which is seen as a positive indication of the Danish culture. The one dimension which we had projected to be higher than the actual findings due to its predominance, is the femininity, with a 0.925 actual mean variance from expected mean. With a mean of 5.075 it illustrates that there still is a high level of femininity, yet not as high as what was theorised. As a result, one can expect a slight deviance from what we had theorised to occur in the task vs social concern of the MOs, since the level of femininity was described by Schneider (1989) to influence whether importance was placed on task or social (Schneider, 1989, 159). Although there is a slight difference in the actual means versus the predicted means, we still believe

that we can conclude that when looking purely at the raw data that there is a strong Danish culture present in the MOs.

**Finding: Danish culture is present in the MOs when looking at the raw data.**

**Finding: The level of femininity is the only dimension that may be slightly below what it should.**

## **Danish culture vs adapting and controlling regressions**

Having determined that 'x' does exist, although slightly differently than expected, we want to examine the relationship between 'x' and 'y'. In order to do this we started out by just looking at the overall relationship. When looking back to the figure 4 in the theoretical framework, one can see that according to the culture described by Hofstede Insights (2018), Schneider (1989) explains that Danes should be primarily adaptive rather than controlling, except for the urgency in the priorities step of strategy formulation. Thus we believed that it would be interesting to create adaptive and controlling indices which can be used test against the Danish culture index. This analysis would be used as a way to illustrate whether the relationship between the established Danish culture is more prevalent in the controlling index or the adaptive index.

So, once again two reflective indices had to be created two reflective indices, as we did not believe that one could have asked one question and have one variable to describe the latent variables of controlling and adaptive strategy formulation. All the questions, Q15-29, which were related to strategy formulation became part of the latent variables, and so first the questions were tested to see whether they all went in the same direction. We decided that we could use the same questions for both indices as they can be considered as opposites - according to Schneider (1989) you cannot both be monitoring and searching in your scanning, just as you cannot prefer both quantitative and qualitative in your information selection (Schneider, 1989, 161). The directions had to be inspected to make sure that the direction was correct for the controlling index, as the questions were formulated in a way to test for what had been expected which was more adaptive directioned. All the response for the controlling variables had to be inspected to see if they would indicate the same type of responses - high numbers on the scale meant high amounts of controlling type of strategy formulation characteristics. Therefore new variables were created that all ended in a 'c' to indicate that they were redirected to be controlling.



The same was done with a few of the variables in order for them to indicate adapting strategy formulation characteristics for the adaptive index, here the new redirected variables ended with an 'a'.

The next step in the indices creation was testing whether the variables would represent their latent variables through matrix correlation and alpha tests. As a result of these tests, there were four variables that were removed from the list of reliable variables as they did not represent the two latent variables. It was the same four variables for both latent variables, 'socialvstask' (with an 'a' at the end for the adapting variable), 'politicalcoalition' (with a 'c' at the end for the controlling variable), 'limitedtime' (with an 'a' at the end for the adapting variable) and 'futurepast' (with an 'a' at the end for the adapting variable). Those four variables were dropped, as they had the weakest correlation numbers and had minuses on the item casewise - reverse variables, alpha test. There was the same alpha results and matrix correlations for the two indices as they are using the same questions and variables just rescaled depending if they were directioned to be adapting or controlling<sup>30</sup>. Consequently two indices were generated as:

$$\text{gen controlindex} = (\text{additionalinfo} + \text{sufficientinfo} + \text{qualquantc} + \text{personalimpersonalc} + \text{bureaucracy} + \text{personaledict} + \text{inductive} + \text{consensus} + \text{historicalprecedentc} + \text{prefershortc})$$

$$\text{gen adaptindex} = (\text{personaledicta} + \text{bureaucracya} + \text{additionalinfoa} + \text{historicalprecedent} + \text{consensus} + \text{inductive} + \text{personalimpersonal} + \text{qualquant} + \text{sufficientinfo} + \text{prefershort})$$

Looking at the two histograms of the indices below, from a quick look the control index looks like it is slightly more evenly distributed, but is skewed to the right, whereas there seems to be more extremes in the adapting index, yet only slightly skewed to the left. Both histograms seem to portray a slight comb like shape, which can result from rounded-up data (ASQ, 2018) - something that can occur when using a scale.

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<sup>30</sup> See appendix 6.1- 6.4 to see the final correlation and alpha tests used for the adaptive and controlling indices

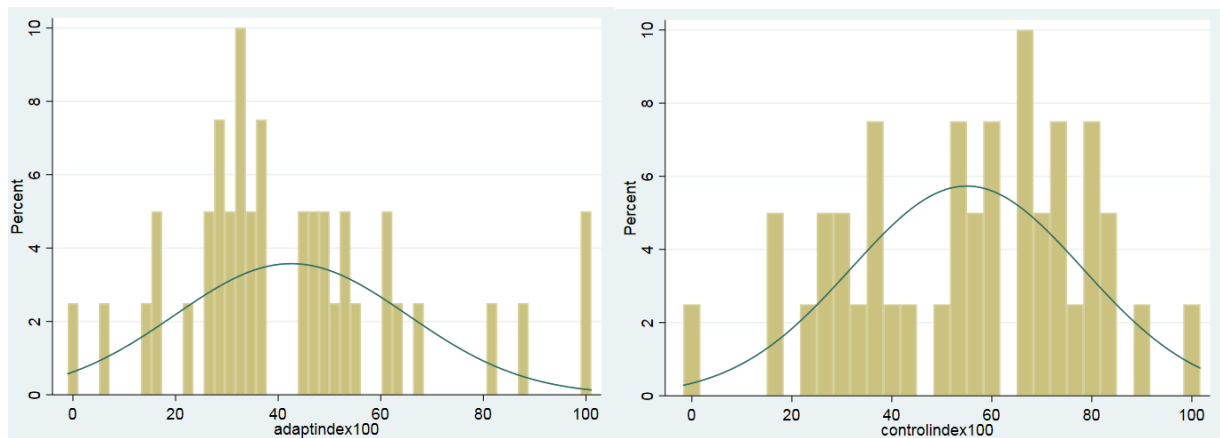


Figure 9: Histograms of the two indices

### Comparison of the bivariate linear regressions

Now that the indices have been created, a comparison of the relationships between the independent variable - Danish culture and the dependent variable - controlling and adapting strategy formulation, can be done. Two bivariate linear OLS regression are done, in order to test the significance of the relationships by the slope of the linear regressions - to predict the shift in dependent variable if the independent variable shifts by one unit (De Vaus, 2002, 282).

```
. reg controlindex100 danishculture100
```

Source	SS	df	MS	Number of obs	=	40
Model	4746.34502	1	4746.34502	F(1, 38)	=	11.11
Residual	16231.4331	38	427.142976	Prob > F	=	0.0019
Total	20977.7781	39	537.891746	R-squared	=	0.2263
				Adj R-squared	=	0.2059
				Root MSE	=	20.667

controlindex100	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
danishculture100	-.4339515	.1301812	-3.33	0.002	-.6974896 -.1704135
_cons	70.23351	5.618058	12.50	0.000	58.86034 81.60667

Figure 10: First regression measuring the relationship of the control index and Danish culture index

```
. reg adaptindex100 danishculture100
```

Source	SS	df	MS	Number of obs	=	40
Model	8811.48979	1	8811.48979	F(1, 38)	=	29.37
Residual	11401.3383	38	300.035218	Prob > F	=	0.0000
				R-squared	=	0.4359
				Adj R-squared	=	0.4211
Total	20212.8281	39	518.277643	Root MSE	=	17.322

adaptindex100	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
danishculture100	.5912706	.1091058	5.42	0.000	.3703975 .8121436
_cons	21.79496	4.708534	4.63	0.000	12.26303 31.32689

Figure 11: Second regression measuring the relationship adapt index and Danish culture index

**The R-squared:** The value in the red box, the R-squared, represents how well the dependent variable - either controlling or adapting index, can be explained by the independent variable - the Danish culture index (Torres-Reyna, 2007, 5). It becomes the overall measure of the relationship strength (UCLA). As seen in the two figures above, the relationship between Danish culture and adapting strategy formulation is much stronger than controlling and Danish culture. That means that Danish culture explains 43% (44% rounded) of why there is adapting strategy formulation, compared to only 22% (23% rounded) of why there is controlling strategy formulation. This backs up the prediction that there was more likely going to be more adaptive than controlling strategy formulation according to Schneider (1989), on the basis of the Danish culture characteristics. The argument that the relationship between Danish culture and adapting strategy formulation is stronger than Danish culture and controlling strategy formulation, is supported by the **root MSE**. This value in the light blue box, is the standard deviation or error term, which indicates a better fit the closer the value is to zero (UCLA, 2018). The second regression shows a much better fit as it is closer to zero than the first, indicating that the relationship between Danish culture and adapting strategy formulation is a better fit than controlling strategy formulation.

**The prob>F:** The value in the orange box, is the “*p-value associated with the above F-statistic*” (UCLA, 2018), and it is recommended to have this value lower than .05 to show any significance to the relationship one is analysing (Torres-Reyna, 2007, 5). The **p-value** in the purple square, indicates with

how much confidence the independent variable correlates with the dependent variable, with a smaller the p-value - anything below .05, the more significant the relationship is (Torres-Reyna, 2007, 5). This value is often used in rejecting the null hypothesis (UCLA, 2918). The second regression of adapting index and culture index, allows us to reject the null hypothesis, that “*There exists no relationship between the Danish culture and strategic formulation found within the MOs*”, since the value is .0000, indicating a significant relationship. The first regression illustrates a lesser significant relationship since the value is .0019.

**The coefficient:** The coefficient in the green square, shows how much the dependent variable - adaptive or controlling strategy formulation, will increase or decrease when the independent variable increases by one - the effect of the dependent variable on the independent variable (Torres-Reyna, 2007, 5). The positive or negative sign will indicate the direction of the slope or the direction. The adapting index has a higher coefficient than the controlling, meaning that the effect of the Danish culture is greater on the adapting index than the controlling index. Also, the controlling index has a negative coefficient, indicating that there is not a positive relationship between the dependent variable and independent variable. By contrast, the adapting index has a positive direction, proving the positive relationship between adapting strategy formulation and Danish culture as we had predicted in the alternative hypothesis. This is illustrated by the scatter plot graphs of the two relationships, where the red lines show the slope or coefficient of the relationships. Thus, one can conclude that Danish culture is going to lower the likelihood of a controlling strategy being present.

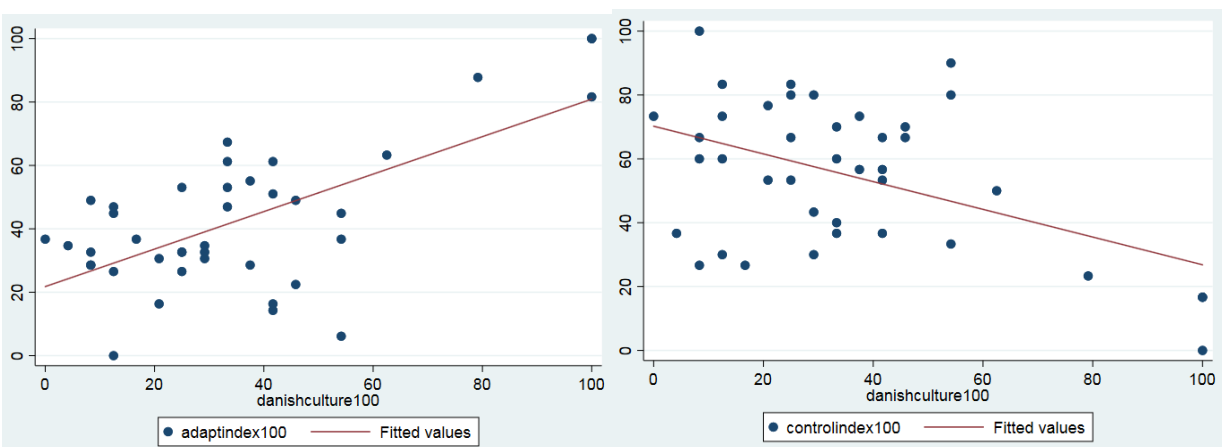


Figure 12: Scatter plot graphs of the two regressions

**Finding: There exists a stronger relationship between the Danish culture and an adaptive strategy formulation than a controlling strategy formulation.**

**Finding: We can reject the null hypothesis.**

**Finding: The p-value of the regression between the Danish culture index and a controlling strategy formulation index, indicates that there is no relationship between the two.**

In order to approve the adapting and Danish culture regression assumption tests of the OLS bivariate linear regression had to be conducted. We decided not to test the assumptions of the regression between the control index and Danish culture index, as we believed the regression was less insignificant as the p-value was higher in this regression than with the adapt index. In addition the negative relationship the regression also argued for us not to test it, as we were interested in a positive relationship. Also, we were primarily interested in the relationship between Danish culture and adapting strategy formulation as it answers the hypothesis. The assumptions for the bivariate linear regressions are; linearity, no influential outliers, normally distributed residuals, homoscedasticity and absence of multicollinearity, which are tested to assure us that the regression is viable and non-biased (Justesen, 2016, 5). We did not test for absence of multicollinearity as a bivariate regression had been conducted, not multivariate, and so this assumption is not applicable<sup>31</sup>. If the regression does not violate any of the assumptions it can be considered BLUE - “Best Linear Unbiased Efficient” regression (Justesen, 2016, 2).

The first assumption linearity, and possibly the most important one, deals with the linear nature of the relationship of the regression, and if violated the results found in the regression might be insignificant (Justesen, 2016, 9). This was tested visually with the use of avplots, where the relationship is linear. The second assumption of normally distributed residuals, argues that for each ‘x’-value, values of ‘y’ will evenly fluctuate around a conditional mean of ‘y’ (Justesen, 2016, 12). This assumption is tested using a histogram, where the distribution can be inspected using the bars and the bell curve. This assumption is not violated, as there is a roughly even distribution, with a slight skew to the right. The third assumption, no influential outliers tests the leverage that any extreme value can have on the slope of the fitted line, thus the influence that these possible variables have on the ‘b’ coefficient of the regression

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<sup>31</sup> See appendix 7 for all the assumption tests

(Justesen, 2016, 13). So a leverage vs. squared residual plot was done, which shows which observations are unusual for both independent and dependent variables (Justesen, 2016, 13). On our leverage vs. squared residual plot, there were three outliers that fall on one or the other axis but not on both, and so should not be influential as it does not affect both variables. A Cook's D test was then performed, to see which of the observations are described as possible outliers (Sønderskov, 2015, 209). The test illustrated, three outliers, one of them in the second cooksD test was disregarded as it was repeated in both of them. The outliers are not considered significant for when running the regression again without the outliers, the R-square although it decreases, the decrease seems insignificant. Thus, we decided not to drop the outliers as it only made minor changes to the slope. The last assumption homoscedasticity tests if the distribution of the 'y' variable's variance is constant around 'x' (Justesen, 2016, 20). There seems to only be a very slight violation of this assumption - normally a violation of this will end in a cone shape or a wave (Justesen, 2016, 20). Thus it may increase the standard error slightly, which can affect the p-value (Justesen, 2016, 20). In order to determine whether or not this variance actually shows heteroscedasticity - violation of homoscedasticity, a robust regression was conducted, comparing the regression to the robust regression. There seems to be no difference between the two, no changes to the standard error, t-statistics nor the p-values which is often expected if there is a violation of homoscedasticity.

**Finding: The adapting and Danish culture regression is BLUE, as the assumptions were not violated so the results are legitimate.**

Thus, overall the bivariate regression of adapting strategy formulation and Danish culture, was proved to be positive. Although not as strongly as hypothesised, with 44% of the adapting strategy formulation explained by Danish culture, 44% still proves a causal relationship between the two. As stated in the theoretical section that strategy formulation is an outcome of various stimuli, one of which is national culture (Schneider, 1989, 150). Believing it would be interesting to see if we could pinpoint other possible influential explanatory variables and conducted a multivariate regression, to increase the reliability and validity of the relationship that has just been proved. We decided to use the control

variables; age, gender, which university they belonged to and how many times they had attended PK<sup>32</sup>. It may be especially interesting to consider how many times respondents had attended PK, as Hatten (1983) describes how in NGO situations, strategies are often formed by the success and previous experience of old strategies (Hatten, 1982, 93). So past experience could be a possible explanatory variable to the use of adapting strategic formulation. The R-squared did increase as expected<sup>33</sup>, yet the R-square increased from 43.59% to 45.82%, an increase that seems too small to be very significant considering the amount of variables that was added to the regression. Also, the additional variables all had a p-value which was above .05, resulting in them being insignificant as explanations for the presence of adaptive strategy formulation in within the MOs. This further enforced the power of Danish culture as a determinant of the type of strategy formulation that is present in the MOs.

Now that the relationship between Danish culture and adaptive strategy formulation has been proved, it would be interesting to see if the predictions made by the theoretical framework would hold at every step of the strategy formulation.

**Finding: Other possible explanatory variables are insignificant to explain the presence of adaptive strategy formulation.**

### **Danish culture vs the individual strategy formulation steps**

Having established that in general Danish culture is present and resembles the adaptive extreme rather than the controlling one, and also establishing that Danish culture explains 44% of the way strategy is formulated within the MOs, in this section the 5 individual strategy formulation steps will be analysed to explore if they are influenced by the particular cultural dimensions as theorised. In order to choose an appropriate type of statistical test, it is important to keep in mind that, when conducting bivariate tests, STATA may not consider our sample of 40 sufficient as it is only 10 observations higher than recommended sample size (Agresti & Finlay, 2014, 227), despite the fact that it represents 40% of population. Therefore we were not able to conduct Pearson's chi-squared test as initially planned,

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<sup>32</sup> See appendix 8 for the multivariate regression

<sup>33</sup>The more factors or variables one includes it becomes more likely that the sum of the factors can explain the dependent variable.

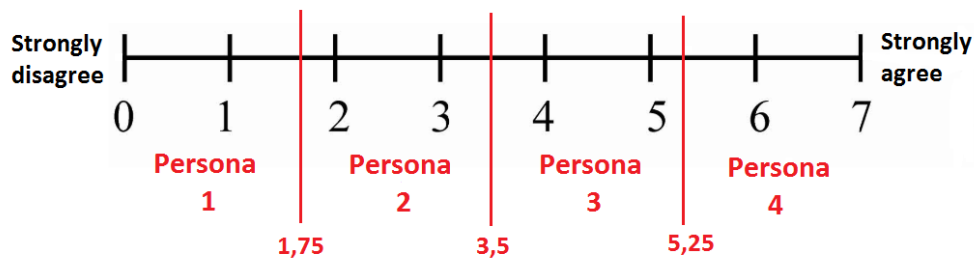
instead Fisher's<sup>34</sup> exact tests had to be conducted. This type of testing is suitable for small samples ( $N < 60$ ) (PMC, 2018), and is used to compare two proportions like this research intends to (Sønderskov, 2015, 135). This type of testing determines "*if there are non random associations between two variables*" (Wolfram Mathworld, 2018), testing association through the deviance of results from the null hypothesis (Agresti & Finlay, 2014, 243). With Fisher's exact tests STATA simply reports on Fisher's exact coefficients which is interpreted in the same way as a p-values (Sønderskov, 2015, 135). Meaning p-values below .05, or the Fisher's exact coefficients, demonstrate a significant relationship and p-values and the Fisher's exact coefficients above .05 represent an insignificant relationship (Sønderskov, 2015, 135). Additionally, simple correlation tests with significance levels were conducted in order to validate the findings of Fisher's exact tests. Correlation testing provides researchers with an insight into the degree of correlation between two variables, a direction of the correlation - in other words a slope of the linear relationship, and with the p-value.

In order to conduct the tests, relevant variables had to be recoded to allow for better understanding. The independent variables were recoded into 'persona' variables and the dependent variables were recoded into dummy variables. The 'persona' variables were created, so that the different culture dimensions could be divided up into 4 categories, so each dimension would have a 'very low', 'slightly low', 'slightly high' and 'very high' 'personas' for each dimension. These new 'personas' were recoded variables of the dimensions to break up the 0-7 scale in 4 categories rather than dummy variables, as it still allows for a more detailed analysis, yet is easier to interpret than 0-7 scales. The process of splitting up our scale for the 'personas' can be seen in figure 13 below. For example the femininity dimension, received a 'very low' femininity 'persona', 'slightly low' femininity 'persona', 'slightly high' femininity 'persona' and 'very high' femininity 'persona'. These 'personas' were created so we could see if the different degrees of femininity could affect the tests, and so when tabulation tests were conducted, we could understand them more easily. This process of creating 'persona' variables was repeated for all of the 5 cultural dimensions. Therefore the femininity dimension is represented by variable 'fempersonas', uncertainty avoidance by 'uapersonas', power distance by 'pdpersonas', long term by 'longpersonas' and individualism by 'indpersonas'.

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<sup>34</sup> Similar to Pearson chi-squared test, Fisher's exact test "*is based on the relationship between observed frequencies and expected frequencies in a cross-tabulation*" (Sønderskov, 2015, 134)





*Figure 13: Splitting up our 8 point scale for the culture dimension personas*

So when the tests were conducted, the independent variables were both the variables that represented each of the cultural dimensions and the cultural dimension ‘persona’. For example, according to our theoretical predictions, the degree of uncertainty avoidance is supposed to have an impact on the nature of interpretation, thus three tests were conducted. The variable ‘qualquant’, that represented the interpretation step of strategy formulation, was tested against all three uncertainty variables - ‘shychange2’, ‘confidontknow’ and ‘uapersonas’.

Our second set of recoding was done so that the 14 strategy formulation variables could be tested with the Fisher’s tests. All of the 14 variables were converted into (binary) dummy variables. This allows for easier interpretation of tabulation and correlation tests and it is done by dividing the 0-7 scale from the questionnaire into only 2 categories where 1 represents observations which fall into the range of 3.5 to 7 on the 0-7 scale. Therefore value 1 is assigned to all initially higher value observations whereas value 0 is assigned to the remaining observations which are positioned within the range of 0 to 3.5 on the scale of 0-7. Figure 14 below, illustrates the process of turning our 8 point scale into a dummy variable. All of the 14 recoded variables end with a letter ‘d’ to signify its binary (dummy) nature. Dummy variables were chosen rather than the scale or ‘persona’ variables since majority of strategy formulation variables represent a characteristic of the strategy step, so it is important to be able to definitely say that interpretation is either qualitative or quantitative or that scanning is either broad or focussed without having them on a preferential scale. Recoding both the dependent and independent variables resulted in conducting 88 tests which may be seen in the figure 15.

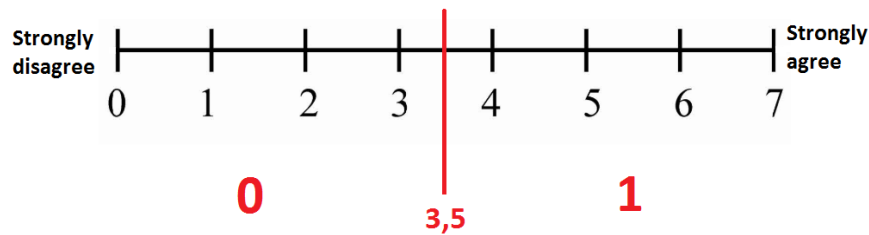


Figure 14: Splitting our 8 point scale of strategy formulation variables into dummy variables

## Results of Fisher's exact tests

According to Schneider (1989), **scanning** may differ in the degree of passive/active, focused/broad and systematic/unsystematic (Schneider, 1989, 151). These variations are influenced by the factors of external adaptation in particular perceptions of control, activity and uncertainty avoidance (Schneider, 1989, 151). Therefore it was tested by examining correlations between cultural variables of the culture dimension of uncertainty avoidance ('shychange', 'confidontknow', 'uapersonas') and the scanning variables ('additionalinfod', 'sufficientinfod'). The expectations were that Danes should scan passively, broadly and non-systematically. Active/reactive scanning is represented by the variable 'additionalinfo' and according to theory, cultures that have low uncertainty avoidance and are handling change well, such as Denmark, should be passive and reactive scanners. When testing 'additionalinfod' against the uncertainty avoidance variables, what we predicted was not found from the results, as the Fisher's exact coefficients are .139 when tested against the variable 'confidontknow', .888 when tested against 'shychange2' and 1.0 against 'uapersonas'. All of these are too high to be considered significant.

The other scanning variable 'sufficientinfod' represents the degree to which scanning is broad or focussed. As mentioned in theory, broad scanning goes hand in hand with reactive scanning and therefore Denmark is considered to be scanning broadly rather than focussed. This variable is also influenced by the perception of uncertainty, activity and control (Schneider, 1989, 151). So 'sufficientinfod' was also tested against the same cultural variables of uncertainty avoidance dimension ('confidontknow', 'shychange2', 'uapersonas') as 'additionalinfod'. Similarly to the case before, all the Fisher's exact coefficients were insignificant ranging from .141 ('confidontknow'), to .924 ('shychange2'), which disproved our predictions for scanning.

The **selecting** step differs in the type of information selected and the source of information preferred. The information type may be either qualitative or quantitative information. The preference depends on perception of the nature of truth and reality and uncertainty avoidance. Countries with low uncertainty avoidance tend to prefer qualitative information and vice versa (Schneider, 1989, 157). Therefore the expectation was that the uncertainty avoidance variables ('confidontknow', 'shychange2', 'uapersonas') would correlate positively with the 'qualquantd' variable, representing the preference for qualitative information. Even though substantial proportion of respondents have low uncertainty avoidance and prefer qualitative information, the Fisher's exact coefficients ranged from .232 ('confidontknow') to .740 ('shychange2'). Again, these results were both too high and are therefore considered insignificant.

The source of information may be either personal or impersonal (Schneider, 1989, 151). The variable that is captioning this is 'personalimpersonald' and it is said to be influenced by individualism ('opinion', 'indpersonas') and power distance ('myvoicematters', 'decisioninvolvement', 'pdpersonas') dimensions. In cultures where social orientation dominates, individuals tend to prefer subjective and personal information as it is considered more trustworthy than objective and impersonal sources (Schneider, 1989, 157). When examining the raw data of the variables, it is clear from the distribution of people's attitudes toward personal or impersonal sources, that the respondents prefer personal sources of information<sup>35</sup>. However, the individualistic variables 'opinion' and 'indpersonas' were both distributed quite unevenly with no obvious bell curve. This could be the reason why there was no significant relationship found, when the variable 'personalimpersonald' was tested against the two variables of individualistic dimension ('opinion', 'indpersona'). In fact the Fisher's exact coefficients are .963 ('opinion') and .885 ('indpersonas'). Similarly, when 'personalimpersonald' is tested against the variables representing power distance ('myvoicematters', 'decisioninvolvement', 'pdpersonas') the correlation is insignificant for all three tests.

Next step was to examine the nature of **interpretation**. According to the theory, interpretation may be either inductive or deductive (Schneider, 1989, 151). Inductive reasoning leads to analytic interpretation whereas deductive reasoning leads to more intuitive interpretation (Schneider, 1989,

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<sup>35</sup> See appendix 9 for distribution of the variable 'personalimpersonal'

157). The factors that have an impact on interpretation are therefore uncertainty avoidance and the manner in which truth and reality are determined. Cultures where truth is acquired through theoretical discussion, philosophy and logic tend to lean towards more intuitive and inductive reasoning (Schneider, 1989, 158). Variable 'inductived' captures this preference and it is clear from analysing the raw data, that the participants do in fact prefer inductive reasoning when looking at the distribution of answers. This was expected as it is predicted that Danes generally prefer inductive reasoning than deductive reasoning (See figure 4). Uncertainty avoidance variables ('shychange2', 'confidontknow', 'uapersonas') and long term orientation variables ('longterm', 'longperonas') were therefore tested against the 'qualquantd' variable. The relationship between 'inductived' and 'schychange2' is highly significant with the Fisher's exact coefficient .016. Subsequently, a correlation test was done in order to double check the validity of this test and with a correlation coefficient or p-value of .001, this confirmed the significance of this relationship. Similarly, the relationship between 'inductived' variable and 'uapersonas' was also significant in both Fisher's exact test - .002 and the correlation test with the p-value of 0. On the other hand there was no significant relationship found when test was conducted against the long term cultural dimension variables ('longterm', 'longperonas'). The two significance values were .867 and .966 respectively.

The following step of strategy formulation according to Schneider is **validation**. Validation can occur in 5 ways. Strategic issues may be validated by bureaucratic procedure, consensus, political coalition, historical precedent and personal edict (Schneider, 1989, 159). The nature of validation depends on the importance of hierarchy, uncertainty avoidance, time orientation, individual vs group orientation and task vs social orientation. As Denmark is considered more adapting than controlling, we are expecting preference of consensus, political coalition and historical precedent. On the other hand personal edict, and bureaucratic procedure are unexpected where personal edict, which implies a strong hierarchy, is the least expected of all to be found significant.

Consensus is considered most likely in cultures with weak hierarchy, social orientation where the emphasis is on the group (Schneider, 1989, 159). Denmark is predicted to value these aspects and therefore, from pure examination of our raw data and the distribution of the variable consensus, it is obvious that majority of the respondents feel strongly that consensus is important in order to come to a

solution. When ‘consensusd’ was tested against the cultural dimensions only one turned out to bear significant correlation tests. The p-value for the correlation test of ‘consensusd’ and variable ‘longterm’ was .0057 whereas when tested against the variable ‘longpersonas’ the p-value was .0078. Both of these p-values are significant. On the other hand, the remaining tests against the rest of the cultural dimensions were insignificant.

Historical precedent is another way of validation, which is likely to be found in prevalently adapting societies such as Denmark. Historical precedent mostly depends on the time orientation towards the past and is used in countries, which value tradition (Schneider, 1989, 158). The distribution of the variable ‘historicalprecedentd’ clearly shows that the respondents consider historical precedent a relatively important validation mechanism, as 26 of 40 respondents answered a value higher than 4 on the questionnaire. When tested against the cultural dimensions, there are significant relationships with the dimension of femininity (‘fempersonas’), individualism (‘indpersonas’) and long term (‘longterm’, ‘longpersonas’) where the Fisher’s exact coefficients were .018 and .031 for ‘fempersonas’ and ‘indpersonas’. Correlation test revealed that there is a correlation with ‘longterm’ and ‘longpersonas’ variables where the p-values are .042 and .05 respectively. The remaining tests against the cultural dimensions of uncertainty avoidance (‘shychange’, ‘confidontknow’, ‘uapersonas’) and power distance (‘myvoicematters’, ‘decision involvement’, ‘pdpersonas’) did not bear any significance.

Though political coalitions may be expected to be used as a validation mechanism in countries which emphasize hierarchy, one may expect political coalition to form also in Denmark due to its individualistic nature and social orientation (Hofstede Insights, 2018). It is represented by the dummy variable ‘politicalcoalitiond’, where 23 of 40 responses agreed that political coalition did occur in the PK as a validation mechanism. When tested against the cultural dimensions, 3 significant relationships were found, which were found when testing against the individualism and long term dimension. The variable ‘longterm’ had a positive relationship with ‘politicalcoalition’ with the Fisher’s exact coefficient of .016. Both of the individualism dimension variables (‘opinion’, ‘indpersonas’) have a significant relationship with the political coalition as the Fisher’s exact coefficients are .02 and .01 respectively.

The remaining means of validation; personal edict and bureaucratic procedure are unexpected in countries like Denmark (see figure 4). While personal edict is a common validation mechanism in countries where hierarchy is emphasized, bureaucratic procedure takes precedent in countries which deal with uncertainty by following formalized procedures (Schneider, 1989, 158). Therefore we were expecting the distributions of both variables to be skewed to the left meaning that respondents answered low values in both of the questions that explored these two validation mechanisms. This was found, and can be seen in the two histograms provided in appendix<sup>36</sup>. Therefore we are expecting insignificant relationships in all the tests involving either ‘personaledictd’, ‘bureaucracyd’ and any of the cultural dimensions’ variables. This is true as all the Fisher’s exact coefficients are insignificant, ranging from .105 to .691 for ‘personaledictd’ and ranging from .063 to .936 for ‘bureaucracyd’. We may thus disregard both bureaucratic procedure and personal edict as a common validation mechanism when examining Danes. This relationship was suspected to be unlikely as Schneider (1989) explains that personal edict and bureaucracy validation mechanisms are seen in controlling strategy formulation, which Denmark has been predicted not to be (Schneider, 1989, 161). Two regressions were run, where the relationship between our control index and ‘personaledict’ was explored, along with control index and ‘bureaucracy’<sup>37</sup>. Both regressions had low p-values of .004 and .002, and when scatter plot graphs were conducted, there was a strong positive linear relationships of both regressions. This illustrated that there is a positive relationship between controlling strategy formulation and these two types of validation.

The last step of strategy formulation is **establishment of priorities**. Prioritization depends on uncertainty avoidance, time orientation and the task vs social orientation and is divided into perceptions of urgency, certainty and importance (Schneider, 1989, 159). In the dataset there are 2 questions/variables representing the time orientation, focusing on the linear perception of time and the emphasis on future instead of past. These are ‘futurepastd’ and ‘limitedtimed’. The outcomes of these questions will determine the urgency aspect of prioritization. Subsequently, there is one question representing the certainty aspect which is affected by uncertainty avoidance and how it is dealt with in

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<sup>36</sup> See appendix 10.1 and 10.2 for histograms of variables ‘personaledict’ and ‘bureaucracy’

<sup>37</sup> See appendix 11.1- 11.4 for two regressions between personal edict, bureaucracy and culture index and their scatter plots

distinct cultures. Certainty is reflected in the 'prefershortd' variable. Finally importance aspect determines the preference of task or social concerns and is reflected in the variable 'socialvtaskd'.

The expectations in regards to urgency, according to our predictions (See figure 4), were that Denmark's time orientation implies that time is perceived as linear rather than sequential and there is an emphasis on future instead of past. When examining the variables 'limitedtimed' and 'futurepastd' one can see that overall the respondents of our survey do consider time as linear and therefore limited, whilst also confirming emphasis of future instead of past. When these two variables were tested against the cultural dimensions that are claimed to have effect on the urgency, we found that the variable 'futurepastd' is significantly correlated with two variables representing uncertainty avoidance ('shychange2', 'uapesonas') with Fisher's exact coefficients of .013 and .002 respectively. There was no significant relationship found with the long term dimension variables ('longterm', 'longpersonas').

In regards to certainty, Schneider (1989) claims that cultures with high uncertainty avoidance are more likely to put long term solutions to the side, preferring short term solutions (Schneider, 1989, 159). The only cultural dimension relevant to this is uncertainty avoidance. When testing the relationship between 'prefershortd' and uncertainty avoidance variables ('confidontknow', 'shychange2', 'uapersonas'), there were no significant relationships found as the Fisher's exact coefficients ranged from .303 to .561.

Finally, importance is determined by culture's orientation towards either task or social concerns (Schneider, 1989, 159). The variable representing this is 'socialvtaskd' and is said to be influenced by the degree of femininity in the society. Since Denmark may be considered a feminine society we were expecting a strong relationship between the respondents who prefer social concerns over completing a task with the femininity cultural dimension. It came as no surprise to see a strong correlation between the variable 'socialvtaskd' and the femininity dimension variables ('femininity', 'fempersonas'). The Fisher's exact coefficients were .006 and .004 and are therefore considered to be one of the strongest relationships found in this study.

All of these results can be seen summed up in the figure 15 below.

(DV) Strategy formulation		(IV) Cultural Dimensions	FEMININITY	POWER DISTANCE		UNCERTAINTY AVOIDANCE		LONG TERM		INDIVIDUALISM						
				decision involvement	my voice matters	pdpersonas	confidant know	shy change 2	uapersonas	long term	long personas	opinion	ind personas			
Steps	Characteristics	Variables used	femininity	fempersona	variables used	variables used	variables used	variables used	variables used	variables used	variables used					
SCANNING	broad/ focused	sufficient info					0,141	0,924	0,613							
	active/reactive	additional info					0,139	0,888	1							
SELECTING	qualitative/ quantitative	qual quant			0,492	0,662	0,232	0,74	0,483							
	personal/ impersonal	personal impersonal			0,288	0,577	0,169				0,963					
INTERPRETATION	inductive/ deductive	inducted						0,001	0							
	uncertainty avoidance	bureaucracy					1	0,016	0,002	0,867	0,966					
VALIDATION	individual vs group	political coalition	0,275	0,936	0,413	0,237	0,063	0,158	0,305	0,109	0,515	0,094	0,419	0,101		
	time orientation	historical precedent	0,427	0,065	0,316	0,802	0,464	0,807	0,093	0,062	0,016	0,602	0,020	0,012		
	task vs social oriented	consensus	0,059	0,018	0,073	0,536	0,394	0,672	0,426	0,188	0	0	0,141	0,052	0,227	0,031
	hierarchy	personal dict	0,828	0,457	0,434	0,117	0,444	0,611	0,335	0,540	0,005	0,007	0,581	0,349	0,873	0,478
ESTABLISHING PRIORITIES	urgency	future past	0,349	0,227	0,443	0,577	0,193	0,638	0,112	0,113	0,274	0,691	0,105	0,053		
	importance	social task														
	uncertainty	short/long term solutions														
			preferred													

Figure 15: The results of Fisher's exact tests



**Findings: There is no significant relationship in the scanning step, selecting step according to their corresponding culture dimension influencers.**

**Finding: There is a significant relationship between the interpretation step and uncertainty avoidance and no relationship found with long term cultural dimension.**

**Finding: There are significant relationships between political coalition and cultural dimensions long term and individualism.**

**Finding: There are significant relationships found between historical precedent and cultural dimensions femininity, long term and individualism.**

**Finding: There is a significant relationship found between consensus and the long term cultural dimension.**

**Finding: There is a significant relationship found between the variable ‘socialvtask’ and cultural dimension of femininity.**

**Finding: There is a significant relationship found between the variable ‘futurepast’ and uncertainty avoidance.**

## **Control variables**

In order to maximize robustness of the analysis, we decided to test our control variables to see if they could explain why we got the results and findings that we have throughout, and to inspect their influence on the responses. Controlling for age, university, gender, position and the amount of times one attended PK by conducting individual tests was done, in order to examine patterns of strategy formulation. Based on various pre-existing stereotypes and assumptions we decided to test each of the control variables against strategy formulation variables where we assumed an interesting relationship could occur. As a result, 28 scatter and tabulation tests were conducted in order to assess these relationships.

### Gender

The first control variable tested for was gender. In our sample of 40 respondents there is 18 non- males and 22 males. The first assumption made is that the non-male proportion of the sample will correlate better with femininity dimension than their male counterparts. This is tested by a simple tabulation of the variable ‘fempersonas’ with 4 categories and the binary variable ‘gender’. For non- males it is very

clear that the femininity values are very strong. This is proved by 16 of 18 non-males (89%) falling with the two ‘personas’ that reflect strong femininity, whereas only 2 non- males (11%) responded in the categories 1 and 2 and therefore have low femininity. When comparing these results to males it is important to compare averages instead of absolute values as the proportion of non- males and males differ. When looking at males, the distribution is also skewed towards higher femininity values, however not as strongly as non- males. 16 of 22 males (80%) answered in the two stronger femininity categories whereas 5 (20%) answered in the low categories of femininity. Therefore one can conclude that in our sample the non- male category possesses 9% stronger femininity characteristics than males. The fact that there were more males, which fall slightly lower on the femininity could explain our earlier finding that the femininity dimension had a slightly lower presence than expected.

Another interesting relationship to look at is between gender and the ‘socialvtaskd’<sup>38</sup> variable representing the prioritization of social issues such as welfare, work life balance and respect before task. As femininity characteristics impact greatly the ‘socialvtaskd’<sup>39</sup> variable, we were expecting similar results to tabulation of ‘gender’ and ‘fempersonas’<sup>40</sup>. When this test was conducted, it was clear that non-males leaned strongly towards preferring the social aspects rather than task related issues with 11 out of 18 non-males prioritizing social aspects, which makes up 65% of non-males. On the other hand, males seem to prioritize task and achieving what is on the agenda over being respected and their wellbeing, with 13 out of 22 males prioritizing the task over the social aspect, which is about 60% of males.

Another assumption, tested the gender vs ‘confidontknow’ to explore Andersen et al’s (1988) argument that women are less conflict shy and want to deal with issues, and also strive to avoid uncertainty (Andersen et al, 1988, 93). The assumption that women are less conflict shy was tested with variables ‘gender’ and ‘confidontknow’<sup>41</sup> and the assumption that they strive to avoid uncertainty was tested by using ‘gender’ and ‘uapersonas’<sup>42</sup>. The tabulation tests however did not confirm any of these

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<sup>38</sup> See appendix 12 for tabulation of gender and ‘socialvtask’

<sup>39</sup> See appendix 13 for Fisher’s exact test of variables ‘femininity’ and ‘socialvtask’

<sup>40</sup> See appendix 14 for Fisher’s exact test of ‘gender’ and ‘fempersonas’

<sup>41</sup> See appendix 15 for Fisher’s exact test of ‘gender’ and ‘confidontknow’

<sup>42</sup> See appendix 16 for Fisher’s exact test of ‘gender’ and ‘uapersonas’

assumptions, as both males and non-males are similarly uncertainty avoidant, whilst both males and non-males show almost identical confidence in saying 'I don't know'. Also, the two gender groups share similar distribution of attitudes towards change as neither males nor non-males are intimidated by it.

Another variable that was tested against 'gender' was 'personalimpersonald'<sup>43</sup>, which reflects respondent's preference of personal and subjective over impersonal and objective information. When looking at the cross tabulation it was apparent that males prefer subjective and personal sources of information more than non-males. Whilst non-males are equally distributed in their preference of personal information, meaning only 50% of non-males prefer personal sources, 68% of males prefer personal and subjective sources over objective and impersonal sources of information. There is therefore 18% difference between the male and non-male distributions of preference for personal and subjective sources of information.

Unexpectedly, gender did not play a role in any of the validation mechanisms except for the use of consensus. It was very interesting to see that males consider consensus necessary much more than non-males. When looking at the tabulation of 'gender' and the binary variable 'consensusd'<sup>44</sup>, there was a 50/50 split of whether or not the non-males preferred consensus, while 18 out of 22 males considered consensus necessary in order to validate a strategic issue. This makes up approximately 84% of males whereas only 50% of non-males prefer consensus. This is a significant difference in the distributions and this issue will be therefore elaborated upon in the discussion section.

### Age

Another control variable is age. As mentioned in the methodology section, the age average of the 40 respondents is 23.8 with ages ranging from 21 to 29. As there is not much variation to this variable, we are not expecting very strong differences in distributions or relationships with neither cultural nor strategy formulation variables. We still decided to test age against the attitudes towards consensus,

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<sup>43</sup> See appendix 17 for tabulation of 'gender and 'personalimpersonald'

<sup>44</sup> See appendix 18 for tabulation of 'gender' and 'consensusd'

personal edict, additional information search, and uncertainty avoidance. Due to ordinal nature of the age variable, scatter plots are easier to interpret than tabulation tests.

When age is tested against uncertainty avoidance, it is important to keep in mind that out of 40 respondents, only 5 are highly avoidant to uncertainty whereas staggering 35 of the respondents are very comfortable with uncertainty. It is however clear that the older respondents are, the more avoidant they become. Respondents below 25 are clearly less uncertainty avoidant, as 34 people under 25 are located in the low uncertainty avoidance values. The tests showed, that age did not seem to play any role except in the preference of historical precedent. The scatter plot describes how the respondents over 25 consider historical precedent as a valid mechanism for validation. The remaining/younger proportion of age categories seem to be randomly distributed where roughly half do prefer historical precedent and the other half do not.

#### Amount of PK's attended

Next control variable is 'attendedpk' and it represents the number of times the respondents have attended PKs. This variable was tested against 'additionalinfo', 'opinion', 'futurepast', 'socialvstask' and 'myvoicematters'. The control variable itself is unequally distributed with 13 of 40 respondents having attended PK 3 times, and all the other values of attendance had less than 7 observations.

Here we found that respondents who attended the conference 7 and fewer times are roughly randomly distributed on the scale representing the degree to which they search for additional information besides what they are given by the DSF. However, individuals who have attended the PK 8 or more times seem to search more for information as their answers always landed in the higher end of the 'additionalinfo'<sup>45</sup> variable. So we can conclude, that the more times one attends the PK, the more actively they search for additional information. On the other hand the remaining variables were randomly distributed and we may conclude that the number of times one attended PK does not influence variables 'myvoicematters', 'futurepast' and 'socialvstask'.

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<sup>45</sup> See appendix 19 for tabulation of 'attendedpk' and 'additionalinfo'

### University

Another control variable is ‘university’. As mentioned in the methodology section, we did not receive answers from all the participating universities and majority of member universities are unrepresented when comparing sample to the population, except CBS where we were able to acquire 100% of population proportion in our sample. This is very unfortunate as it would be very relevant to the paper to be able to investigate if the universities internal cultures differ and if there are any patterns to be seen in the attitudes of differing universities. We will thus not be able to make any conclusions about RUC and SDU as there is only one respondent from each of these two universities.

Firstly, we tested if students from CBS and DTU were more task oriented than other universities, we made this assumption based on the nature of studies at the different universities. While KU, AU, AAU, RUC and SDU offer variety of programmes, CBS and DTU specialize in business and technical knowledge, therefore certain assumptions may be made. This seems to be true as 10 out of 13 CBS students seem to prioritize finishing what is on the agenda over everyone feeling respected<sup>46</sup>. A university with a similar distribution was DTU which specializes in technical expertise with 3 out of 4 respondents prioritizing task over social issues. The remaining universities (KU, AU, AAU, SDU) had prevalently social orientation. The assumption was, that femininity distribution across universities<sup>47</sup> would be reflective of task vs social orientation. This was however not true, as there was not enough variation in the sample. All universities are predominantly feminine, with only 7 people out of 40 in total who answered in the lower end of the femininity question. Out of these 7 individuals, 3 were from CBS and the remaining 4 were distributed randomly across universities. Thus, we may conclude that all respondent universities were predominantly feminine.

Another interesting aspect to look at, were the attitudes towards personal edict as a way of issue validation<sup>48</sup>. Here the expectation was that CBS, due to its business like nature, would be the one with relatively high personal edict preference. This was true as it was the only university with more students answering in favour of personal edict than against it. DTU was a university with the most extreme

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<sup>46</sup> See appendix 20 for tabulation of ‘university’ and ‘socialvstaskd’

<sup>47</sup> See appendix 21 for tabulation of ‘university’ and ‘femininity’

<sup>48</sup> See appendix 22 for tabulation of ‘university’ and ‘personaledictd’

values as all 4 out of 4 respondents from DTU were strongly against personal edict as a form of validation. Since DTU emphasises scientific education this finding is not surprising as L. Krauss (2012) suggested that *“in science, there are no authorities”* (Krauss in Scientific American, 2012) and that *“there is no appeal to authority in science”* (Krauss in Scientific American, 2012). The rest of the universities had relatively minor and insignificant differences between approval and disapproval of personal edict. When it comes to political coalitions as a form of validation all universities except AAU, RUC and SDU are generally in favour of political coalition.

In regards to type of information preferred. The assumption was that CBS students would sought quantitative information together with DTU, whereas universities which teach ‘softer educations’ for example psychology, sociology and similar would on the whole prefer qualitative type of information. This is true according to our sample where CBS, DTU and KU overwhelmingly prefer quantitative type of information. KU offers wide variety of programs however majority seems to be of scientific nature (KU, 2018). Thus this finding is not surprising. The remaining universities showed a preference for qualitative type of information. According to Schneider (1989), qualitative information goes hand in hand with preference of subjective and personal sources of information and vice versa for quantitative and objective sources. We therefore tested the preference for subjective and personal information sources with ‘university’<sup>49</sup>, in order to see if the results resemble those of qualitative or quantitative information. We expected CBS, DTU and KU to have a preference for objective and personal sources of information and the rest of universities to prefer personal and subjective sources. To our surprise however, the cross tabulation test showed that all students from the sample generally prefer subjective and personal information. DTU was the only university with equal observations in favour of personal and subjective sources and in favour of impersonal and objective sources of information.

### Position

The last control variable is the respondents’ position within the MO. This was assessed by asking respondents to comment in their own words and describe what their main position is. As these commentaries were not recognized by STATA as numeric values, this variable had to be consequently recoded into a binary variable, where value 0 was assigned to delegates and value 1 was assigned to

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<sup>49</sup> See appendix 23 for tabulation of variables ‘university’ and ‘personalimpersonal’

group leaders. The binary distribution of the variable ‘position’ resulted in having 33 delegates and 7 leaders. It therefore makes sense to test this against all the validation variables, how much one agrees with the statement that everyone should be involved in decision making, how much they believe that their voice matters and to what extent they consider their opinion more than others.

When we tested how much one feels like their voice matters, the assumption was that the leaders would feel strongly that their opinion matters whereas the rest of the delegacy would feel that their voice mattered less. The delegates scored overwhelmingly high on this question as 26 of the delegates answered with a value higher than 4, signifying that their voice matters, and only 7 delegates feel that their voice matters less. This links to the very low power distance that Hofstede describes Denmark to have (Hofstede, 1983, 81). On the other hand, 6 out of 7 delegates claim that their voice matters as much as others’. It was surprising to see that 1 of 7 leaders felt that their voice did not matter so much as this individual scored 2 on the scale from 0 to 7. Despite this one individual, it is clear that overall everyone feels strongly that their voice matters regardless of their position. Decision involvement was another variable that we expected to come out with similar results to the previous one. The variable reflected one’s agreement with the statement that everyone should be involved in the decision making process. The tabulation test shows that all 33 delegates and 7 leaders positioned themselves high on the scale and thus agreed with the statement and what Hofstede describes.

The variable ‘opinion’<sup>50</sup> represents the degree of individualism and reflects to what degree one considers their own opinion more than others. The assumption is that the leaders would score highly on this measure and the delegates would score lower. The tabulations show that there is this trend but it is quite weak. While 18 of 33 delegates consider their opinion more than others, 4 out of 7 leaders do. That is 55% of delegates and 60% for leaders who scored 4 and higher on the scale of 0 to 7. Difference of 5% is not enough to make any definite conclusions especially considering the size of our sample.

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<sup>50</sup> See appendix 24 for tabulation of variables ‘opinion’ and ‘position’

Lastly, the validation mechanisms were tested. Consensus seems to be in general more important for the leaders as 6 out of 7 leaders scored high on the question, which is approximately 89%<sup>51</sup>, but only 36% of delegates consider consensus as a necessary validation mechanism. On the other hand when asked about the use of personal edict as a validation mechanism, the leaders were slightly more in favour than delegates, the majority of whom answered against personal edict. Here 24 of 33 delegates were against personal edict whereas 4 out of 7 leaders were in favour of it. Again with such a low number of leaders in our sample and with such a small difference in answers, we may not definitely conclude that the leaders are uniformly in favour of personal edict. The rest of the validation mechanisms seemed to be in no way correlated to the position of respondents, and will therefore be disregarded.

**Control observation: Older respondents being more uncertain and prefer historical precedent.**

**Control observation: Non-males have higher femininity, prioritise social over task, and prefer objective and impersonal sources of information.**

**Control observation: Males consider consensus much more necessary than non-males**

**Control observation: Other than CBS we did not feel we could make real conclusions due to lack of representativeness**

**Control observation: CBS prefers quantitative data, personal edict and political coalitions and is more task oriented with feminine orientation.**

**Control observation: Leaders are more likely to favour personal edict than delegates and consider their opinion important.**

**Control observation: Leaders feel more strongly than delegates that in order to arrive to a decision in a group, everyone's opinion matters, that everyone in the group should be involved in decision making, that consensus is necessary.**

**Control observation: Respondents who attended PK 7 and more times search more for additional information.**

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<sup>51</sup> See appendix 25 for tabulation of variables 'position' and 'consensusd'



## Sum up

To conclude the analysis we will list our main findings, which were mentioned in this section of the thesis:

- Finding: Danish culture is present in the MOs when looking at the raw data.
- Finding: The level of femininity is the only dimension that may be slightly below what it should.
- Finding: There exists a stronger relationship between the Danish culture and an adaptive strategy formulation than a controlling strategy formulation.
- Finding: We can reject the null hypothesis.
- Finding: The P- value of the regression between the Danish culture index and a controlling strategy formulation index, indicates that there is no relationship between the two.
- Finding: The adapting and Danish culture regression is 'BLUE', as the assumptions were not violated so our results become legitimate.
- Finding: Other possible explanatory variables are insignificant to explain the presence of adaptive strategy formulation.
- Findings: There is no significant relationship in the scanning step and the selecting step according to their corresponding culture dimension influencers.
- Finding: There is a significant relationship between interpretation step and uncertainty avoidance and no relationship found with the long term cultural dimension.
- Finding: There are significant relationships between political coalition and cultural dimensions long term and individualism.
- Finding: There are significant relationships found between historical precedent and cultural dimensions femininity, long term and individualism.
- Finding: There is a significant relationship between consensus and long term cultural dimension.
- Finding: There is a significant relationship between the variable 'socialvstask' and the cultural dimension of femininity.
- Finding: There is a significant relationship between the variable 'futurepast' and uncertainty avoidance.

From the findings the null hypothesis can be rejected while proving that there is a positive relationship between Danish culture and the strategic formulation of our NGO. We acknowledge that only 44% of the present strategy formulation in the MOs can be explained by the present national culture, and that some of the results of the strategic steps are not as predicted, and so we will move on to the discussion section. In the discussion there will be reflections back to the theoretical framework to discuss any variance between the findings and the theory, by examining alternative explanations for the results. The discussion will also refer back to the NGO theory that we explored in the theoretical framework to explore if NGO theory can explain the discrepancies found in the results.

## Discussion

In this section, we will first discuss our findings from our analysis, with a critical view on the theoretical framework, to illustrate if there were any disagreements found between our theory and our findings - the predicted and the actual, and overall will try to understand in more detail why we found the findings we did. Then some of the potential methodological limitations or influences on our findings will be discussed, in order to conclude whether the accuracy and validity of the paper was upheld or not.

### Theoretical Discussion

#### DSF and the adaptive mode

Our first contribution is based on an extension of Schneider's theory of strategy formulation. This thesis provided empirical data to support or contradict the claims that national culture has an effect on strategy formulation. This was done as empirical evidence is absent in Schneider's work, which is exclusively composed of a theory compilation, without consistent evidence to support the theoretical claims. Throughout the theory, Schneider (1989) mentions countries such as Japan, the US or Sweden, excerpts from other researcher's findings, that sometimes explain the theory, but without any systematic approach and no complete information (Schneider, 1989, 149-164). Schneider's theory may not be considered an empirical research as there is no case analysis and nor does it collect any data on which the theory could be built. Schneider's theory is instead based upon a pure summary of other theories concerned with culture or strategy formulation.

Based on the comparison of the two OLS regressions, where we inspected the relationship between adapting strategy formulation and Danish culture and controlling strategy formulation and Danish culture, we are able to conclude that the nature of how strategy is formulated by participants of PK, does reflect the implications of adaptive model rather than controlling model. However this is not to claim that national culture is a sole and absolute determinant of strategy formulation. On the contrary, we acknowledge that culture is just one of many variables that influence strategy formulation, as

alongside culture, organisational structure, technology and institutional arrangements play crucial role as well (Schneider, 1989, 150). Our regression also supports this point as it demonstrates that 44% of the adapting strategy formulation is explained by Danish culture. This implies that 56% of strategy formulation is caused by other explanatory variables. On the other hand, only 22% of controlling strategy formulation is determined by national culture, whereas the p-value (.002) was slightly higher than the regression of adapting mode and Danish culture. The increase of p-value, although it is still significant, demonstrates a lower significance of the relationship. As Schneider (1989) does not examine a particular case and does not provide empirical evidence, we believe that we contribute to the literature by this study, with an example of how a case that is built on her theory can be observed.

#### Importance of organisational culture

One contribution that the analysis brings to the existing literature comes in the form of an extension of Schneider's (1989) theory, the claim that national culture is just one of the influencers of strategy formulation. From our analysis, the Fisher's exact tests allowed us to generalise that in our case the scanning and selecting processes are not affected by any of the relevant cultural dimensions. The high p-values indicate a disagreement with what Schneider (1989) theorised, that there should be a relationship between the uncertainty avoidance levels as a manifestation of the relationship with the environment and the type of scanning that is observed (Schneider, 1989, 152). Also, there should be a relationship between the cultural dimensions of power distance, individualism and uncertainty avoidance to the process of scanning and selecting the strategic issues. These findings provide us with an argument that supports the claim, that national culture is just one of the influences on strategy formulation. Our contribution is highlighting the importance of organisational culture or the nature of the organisation by understanding how the nature of the NGO we studied influenced the responses we found in the variables attributed to scanning and selecting.

The raw data analysis lead us to a belief, that the information gathering and selecting has been greatly affected by the NGO aspect of our sample. Doh and Teegen (2004), argue in the NGO framework, that information is the most crucial source of competitiveness and value creation (Doh & Teegen, 2004, 215), and so we expect that there is a great focus on the scanning and selecting within the MOs. In reflection of how Denmark scores on the 5 dimensions and Schneider's claims, there should be

reactive, broad and non-systematic scanning, while depending on qualitative, personal and subjective information (Schneider, 1989, 161). In analysing the raw data, we found that there was reactive, focussed, scanning and dependency on quantitative and personal information. Considering claims of Hatten (1982) and Moore (2000), that ‘looking back’ or identifying past functional practices is the first and most important step of information gathering that NGOs utilise, it may explain why there is a rather systematic and focussed scanning in the MOs (Hatten, 1982, 83; Moore, 2000, 184). During the PK, the MOs are very focussed on the discussion point at hand, and some look to outside understanding, but there might not be a very broad interest if the motivation of the paper is a single topic. Also, one of the key differences between not-for profit and for-profit organisations is the resource availability. Schneider (1989) explains, that organisations differ in scanning and selecting with the amount of attention and resources they can allocate to these two steps (Schneider, 1989, 151). The MOs may simply not have the resources and time, as a result of being volunteer based, to search actively and broadly, and may need to scan systematically in order to fully utilise their resources. We found no relationship between Danish culture and reactive scanning despite the presence of reactive scanning. Our findings may therefore reflect, that when the environment is perceived as uncontrollable, scanning tends to be reactive (Schneider, 1989, 156). Considering that NGOs tend to work within an uncontrollable environment where they have to interact with many different players and address various interests, it may be more effective for the MOs to have reactive scanning, as they cannot predict which information is going to be needed.

One aspect that we could not explain through the reflection of NGO theory, is why there is only slightly higher preference of qualitative information sources, lower than what one would expect (Schneider, 1989, 157). Schneider (1989) mentions how Keegan’s work (1983) found that the Japanese used qualitative information in order to set broad guidelines that could be adapted to changing environments (Keegan in Schneider, 1989, 157). This confirms the claims that in order to “*remain viable, organizations must adapt to changes in their environment*” (Geletkanycz, 1997, 615). Considering the uncontrollable environment that one could expect that NGOs work within, one could also expect NGOs to want broad guidelines, a broadness that would also allow an NGO’s mission not to be too extreme for moderate donors and workers, and include as many people in need as possible in their social missions (Doh & Teegen, 2003, 207). So there should theoretically be a stronger qualitative

dependency<sup>52</sup>. Yet, there was only an average of 3.48 from our raw data, where a 7 would indicate pure qualitative information dependency. It could be a reflection that DSF is not completely monolithic, and that there could be a difference in the MOs that create a variance in preference for the type of information. This was found when we analysed our control variables, where different universities preferred quantitative information over qualitative information and vice versa. In particular, universities, which focus on more technical knowledge such as CBS or DTU seem to prefer more quantitative information than universities like KU, SDU or RUC where the emphasis is rather on logical discussions, various sciences and philosophical principles.

The contribution of falsifying the theory through the first and second step of strategy formulation, allowed us to further question the extent to which the findings of our national culture dimensions could be affected by organisational culture. Hofstede (1994) argues, that national culture and organisational culture are two different aspects that both influence the individual, yet organisational culture is a reflection of the national culture (Hofstede, 1994, 7). However, the raw data analysis of the individualism dimension, lead us to discuss whether we can describe the Danish culture as individualistic as predicted, and if it could be a reflection of the organisational culture influencing the individualistic dimension of national culture and not inversely.

The average that we found in our responses was 3.6, which shows, that there is a more individualistic than collectivist society, and when comparing this average to the average that we predicted based on the ‘power’ of the dimension, there was a difference of .4 between what we predicted and the actual result. This means, that we can confirm the presence of a more individualistic culture. However, we do not believe that the average nor the individual responses were high enough to characterise the sample as individualistic the way that Hofstede (1983) describes the dimension. Individualistic cultures are based on loosely-knit social framework, that is very centred around oneself and immediate family, and where same standards are expected for all (Hofstede, 1983, 79). Our average indicates that the MOs may have some tendencies towards collectivist society, where people are integrated into strong, cohesive groups, protecting and helping members (Hofstede, 1983, 79). We believe, that the results found within this dimension are strongly affected by organisational culture or the nature of the case

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<sup>52</sup> See appendix 26 for tabulation of variable ‘qualquant’

DSF that we research. We would assume, that the culture of NGOs and the social mission imply very strong collectivism, which could explain why, when studying such a social based case, the dimension is likely to be skewed towards a collectivist culture. The nature of a membership NGO is to advocate and help the members of the group, that individuals stand stronger together than alone (Teegen et al, 2004, 466), and so the MO members are no longer acting in order to only promote themselves and their immediate family, instead they are guiding a group. We could argue, that because Danish culture is predicted to be individualistic, a completely collectivist culture is unlikely, as the NGO still exists within the national culture. Hofstede (1994) argues, that organisational culture is influenced by the national culture in the same manner that national culture is likely to influence personality (Hofstede, 1994, 7). The combination of a strong individualist culture and a collectivist corporate culture could explain why there is an average that is not solely individualistic nor collectivist. In order to be assured that the NGO structure is the driver of the more collectivist response than expected, it could be interesting to research to what extent this specific dimension can be influenced by the type of organisation the study is based on.

#### Strategy formulation steps and Danish culture

One of our contributions is the ability to generalise from our analysis that there are specific steps - interpretation, validation and priority establishment that are influenced by the corresponding national dimensions, which support Schneider's (1989) theory. Interpretation is found to have the most significant relationship with the uncertainty avoidance dimension, as theorised by Schneider (1989) cultures with low uncertainty avoidance tend to value intuitive and inductive reasoning - average preference for inductive reasoning is 4,4<sup>53</sup> (Schneider, 1989, 157). Danes therefore have a general preference for debating in terms of logical principles, philosophy and theoretical discussion rather than empirical evidence and hard facts (Schneider, 1989, 158). This relationship might also be explained by the nature of PKs, which are generally debate based rather than purely analytical using hard data and facts.

Our findings further confirm Schneider's (1989) theory, that validation is generally most affected by long term dimension, femininity and power distance (Schneider, 1989, 158). We found that historical

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<sup>53</sup> See appendix 27 for sum of variable 'inductive'

precedent (4.05), consensus (4) and political coalition (3.7)<sup>54</sup> are most preferred means of validation. On the other hand bureaucratic procedure (2.5) and personal edict (2.3) are the less preferred means of validation. This confirms our theory based predictions. However, we found that uncertainty avoidance does not play a significant role in determining the preference of validation mechanisms, as all the p-values exceeded .05, in other words, neither of the correlation tests were deemed significant. This is especially surprising in the case of historical precedent, which when tested against uncertainty avoidance had a p-value of .188. One would expect that if a country such as Denmark has a low uncertainty avoidance, and therefore is not afraid of change and the 'new', there would not be a tendency to rely on historical precedent as much as we found. Instead one would expect openness for new means of validation, which may be ambiguous at times.

Finally, our findings were able to create theory asserting generalisations about priority establishment to be mostly affected by femininity and uncertainty avoidance. Our findings confirm that the Danish respondents prefer focussing on future instead of past (4.8)<sup>55</sup>, due to low uncertainty avoidance, which results in increased urgency. This is also due to the view of time as linear and "*something to be saved, spent or wasted*" (Schneider, 1989, 159). Our data clearly shows us that with the mean 6.05<sup>56</sup> our respondents do in fact hold this view very strongly as it is very close to the upper extreme value of 7. Another theorised relationship that we can confirm with confidence is the femininity dimension with the social orientation. With the p-value .004 the relationship is very significant. This proves Schneider's (1989) claim, that feminine cultures value wellbeing, job security or employee welfare over achieving the task (Schneider, 1989, 159).

The findings of femininity and strategy steps help prove that there does exist a positive relationship between national culture and strategy formulation in the last three steps, as we found that when 'x' changes so will 'y'. As predicted by Schneider (1989), in cultures with a high level of femininity, there will be a greater importance of the quality of the process, that the social aspect has been met rather than just meeting the task and conducting it very efficiently (Schneider, 1989, 159). One aspect that was

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<sup>54</sup> See appendix 28.1- 28.5 for sums of all validation mechanism variables ('personaledict', 'consensus', 'politicalcoalition', 'bureaucracy' and 'historicalprecedent')

<sup>55</sup> See appendix 29 for tabulation of variable 'futurepast'

<sup>56</sup> See appendix 30 for sum of variable 'futurepast'



worrying upon discovering that the femininity dimension was lower than predicted, was what would this lower dimension's effect be on dependent strategy formulation step, i.e. what effect could 'x' (Danish culture) have on 'y' (strategy formulation) if 'x' was not as predicted - would Schneider's theory hold true?

The femininity dimension is the dimension that we believe diverted the most from what Hofstede Insights (2018) had theorised, and so if the corresponding variable 'socialvtask' indicated that there was a very strong social importance (a high answer on our scale) rather than task or a middle ground, there would be a proof that the importance element in the fifth strategy formulation step was not influenced by the cultural dimension. The more task oriented results or a middle ground would go against what we had expected before we knew of the lower feminine dimension, and so in order to prove that the 'x'-'>'y' relationship was as we had predicted in our hypothesis, when the culture dimension changed, a lower average would be desired on the corresponding 'socialvtask'. When looking at the raw data of the variable 'socialvtask', the average of the responses was 4 on our 0-7 scale, which was quite a bit lower than the 7 that we had originally predicted, with a mode of 9 responses answering 2 on our scale and 50% of the answers being 3 or below. Initially it was worrying, as it was lower than predicted, yet when looking at the femininity which only has an average of 5.075 this dimension was also lower than we had expected, so the relationship holds due to the lower average on the 'socialvtask'. We then looked to our correlation tests of the two variables 'femininity' vs 'socialvtask'<sup>57</sup> and 'fempersonas' vs 'socialvtasks'<sup>58</sup>, where the results of .006 and .004, well below the cut off line of .05, the correlations between femininity and the social importance variable was the strongest relationship in this study. This proved that for the fifth strategy formulation step, 'x' (specific culture dimension) does influence 'y' (fifth strategy formulation step), even when 'x' changes. This increases the validity of our relationship as it illustrates that the generalisations should hold in other cultures or studies

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<sup>57</sup>See appendix 13 for tabulation of variables 'femininity' and 'socialvtask'

<sup>58</sup>See appendix 31 for tabulation of variables 'fempersonas' and 'socialvtask'

### Importance of consensus and historical precedent

Another contribution came in the form of questioning the conscious and unconscious elements of the concept of strategy formulation. As mentioned in our literature review, Schneider's theory (1989) appears to be composed of both conscious and unconscious choices, where the effect that national culture has on the strategy formulation steps seems to be part of the unconscious. However, Miller and Friesen (1978) suggest that a successful and effective strategy formulation is more likely achieved through flexible adaptation and innovative thinking, while involving variety of opinions and inputs from across the organisation (Miller & Friesen, 1978, 922). This allows us to question whether or not some of the findings, especially the low power distance and presence of consensus and historical precedent, were conscious choices in order to be more adaptive. Dyson and Foster (1982) "*found that the effectiveness of certain parts of a planning process is enhanced through participation of many organizational members*" (Dyson & Foster in Ireland et al, 1987, 470). Thus in other words, low power distance in an organisation helps to facilitate the effectiveness of strategy formulation. Ireland et al (1987) also argue, that the assessment of organisational strengths and weaknesses must involve variety of individuals and require focus on group (Ireland et al, 1987, 470). We have found that inclusion of opinions regardless of position does in fact matter to adapting societies. Our research shows an overwhelming tendency for valuing each opinion the same, which is proved by the means of 'decisioninvolvement'- 5.5 'myvoicematters'- 5.3 and 'consensus'- 4<sup>59</sup>. In this study we have found that leaders, in fact hold this opinion more strongly than the subordinates/ delegates. While change may be seen as a threat or as an opportunity, Geletkanycz (1997) suggests that "*many develop a strong personal attachment to existing policies and profiles which effectively impedes change in organizational strategy, and the systems and practices which support*" (Geletkanycz, 1997, 615). This may explain the tendency of the respondents to rely on historical precedent (4.05)<sup>60</sup> as a form of validation mechanism. Thus, some choices appear to be more conscious than just following the predetermined mental programming that culture is described as. However, whether these choices could be taken within a culture that was not as adapting as we found, we are unable to comment on. As globalisation can be seen as a challenge to be adaptive, the adapting culture that we have observed may thus also be attributed to the internationalisation forces.

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<sup>59</sup> See appendix 32 for sums of variables 'decisioninvolvement', 'myvoicematters' and 'consensus'

<sup>60</sup> See appendix 33 for sum of variable 'historicalprecedent'

Ultimately both Ireland et al (1987) and Schneider (1989) agree, that *“the assessment process cannot be separated from the assessors”* (Ireland et al, 1987, 470). As in this research we have been able to support Hofstede’s claim that Denmark has a rather individualistic society (3.5) (Hofstede Insights, 2018), we are able to confirm a point that Schneider (1989) and Ireland et al (1987) seem to agree on, that *“given their individuality, managers bring somewhat unique perspectives to processes used to evaluate an organization and its internal and external environments”* (Ireland et al, 1987, 470). Our research supports this claim as we found validation step to be significantly related to individualism dimension with p-values .01, .02 and .03 for political coalition and historical precedent. Ireland et al (1987) also propose that *“mental representations significantly bias the interpretation of current reality”* (Ireland et al, 1987, 472). This support previously mentioned point that individuals’ personalities, as a product of external culture, and one’s inherent characteristics play crucial role. Once again this reinforces the unconscious element of the strategy formulation, as it appears that it would take a cognitive effort to separate one’s assessment from oneself as we are products of a combination of human nature, personalities and external forces such as national culture (Hofstede, 2010, 6).

Drawing on previous research, Ireland et al (1987) also suggest that environmental uncertainty greatly affects strategy formulation though they emphasize how the perception of this uncertainty differs across managerial levels (Ireland et al, 1987, 481). In this study we only had two hierarchical levels- delegates and leaders whereas uncertainty avoidance seems to be equally distributed across these two levels. We were therefore not able to conclude definitely that uncertainty avoidance perceptions differ across managerial levels in accordance with the theory.

#### An analytical tool to deal with extremes

From utilising Hofstede’s (1983, 1994, 2010 & Hofstede Insights, 2018) cultural dimensions, and translating the characteristics into directions on our scale, our findings agree with the criticism made by McSweeney - Hofstede’s work seems to construct the dimensions around strong, absolute characteristics (McSweeney, 2000, 93). This raises a question, how do we deal with cultures, which position themselves around the middle of the cultural dimensions rather than in the extremes, such as the score that Denmark has on the long-term orientation dimension? Hofstede (1994) also mentions,

that the characteristics, that the work describes for each dimensions “*refer to extremes; actual situations may be found anywhere in between the extremes*” (Hofstede, 1994, 2). The idea that the descriptions are exaggerations and not the norm, should not be a problem when the scores of that dimension represent extremes, for example Malaysia scores a 100 (on a 0-100 scale) on the power distance dimension (Hofstede Insights, 2018). Thus, the extreme that Hofstede describes can still be observable in such particular cases. However, what can be observable when a culture scores a midrange score on a dimension? Can the theory with its extreme based characteristics then still be used by just adjusting to take height for the mid score to expect less present characteristics, or should there be new characteristics/descriptions of the mid-range for each dimension? This relates to our analysis of the long-term dimension of Denmark, where according to theory, the dimension scores 35, varying 15 points from the midpoint on the scale of 100 (Hofstede Insights, 2018). Thus, claiming that there was a strong long-term oriented culture would could not be justified. This is not a hindrance to analysing the culture as Danish, since according to the score, we were expecting a more long-term oriented responses than short-term oriented responses, and thus observing a strong long-term oriented culture would actually disprove the theory. The problem arose in testing and reaching a verdict when the theory is based on extremes. We were not provided with any indication of what a mid-range dimension would look like, and so we had to test the extreme characteristics of a strong long-term orientation, which lead us to consider how our scale would work when we are looking for mid-range results.

This is where we believe we made a contribution and new consideration to the theoretical realm in the form of a new analytical tool. In order to account for absolutivity and to determine whether or not a dimension is met if the average is very close to 0 or 7 on our questionnaire scale, we created strength appropriate averages that we could base our conclusions about the dimensions on. As mentioned in early sections of the thesis, the strength of presence or dominance that the dimension theoretically has - based on their scores on the 0-100 Hofstede’s scale (Hofstede Insights, 2018), determined from 1-5 how important and thus how close to the extremes that the averages had to be. We believe, that these adjusted averages made our analysis more reliable and valid, as it predicted more accurately than relying on unlikely extremes. Although we considered if it violated the premise of our critical realist viewpoint, as we could be considered involved in the perception of the research, we believe that we were still applying the theory without becoming involved in the interpretation of the results, which

would allow us to still objectively interpret the theory without violating the critical realist ‘rules’. We thus believe that future research should look into providing some mid-range characteristics in order to test the characteristics more accurately rather than depending solely on post data collection to apply an accurate analytical tool.

### A new critique of Hofstede

Another contribution was generated from questioning when different elements of one’s national culture, that make up the dimensions, are learnt, and at which stage national culture is not ‘taken in’ or imprinted on its citizens. According to Hofstede (1994), individuals learn at three stages, ‘In the family’, ‘At school’ and ‘At workplace’ (Hofstede, 1994, 2) and *“people’s behavior in the work situation is strongly affected by their previous experiences in the family and in the school”* (Hofstede, 1994, 2). Thus, when is something has really been learnt and which group – the family, school or work, is the most influential in the learning of the national culture? These are questions that Hofstede (2010) does not provide an answer to. Hofstede (2010) seems to neglect the consequences of globalization, and of growing amount of individuals who move to countries at different stages of their lives or who are raised by parents with different nationalities or attend international education. We question this, as each family may be different even if they share the same culture and different schools and workplaces may have different organisational cultures. We acknowledge that Hofstede (1994) argues, that since these groups (family, school and work) are still within the boundaries of national culture, their ‘organisational culture’ should be a reflection of their national culture (Hofstede, 1994, 7), yet minor differences may still occur within the groups. So how does this affect the development of national culture? For example, one of the writers of this thesis is ‘Danish’, we decided to include the ‘’ as we begin to debate when one becomes ‘Danish’. One of the writers has ‘Danish’ parents who were born and raised by a ‘Danish’ family and ‘Danish’ institutions and worked in a ‘Danish’ workplace. However, this ‘Danish’ writer went to an international school when the parents moved to Spain for work. Having received earlier schooling in Spain by a multitude of different teachers with different ethnicities, yet returning for university in Denmark, and working in Denmark and being raised by a ‘Danish’ family – would this individual share the same ‘mental programming’ as the other Danes, which Hofstede (Hofstede, 1994, 1) defines as nationality. The question of when it is most important to be taught how to be ‘Danish’ also arises when confronting the question of ‘Danish-ness’ of children of

first or second generation of immigrants. Denmark has a large percentage of individuals who are descendants of immigrants, yet still consider themselves 'Danish'. According to Hofstede (2010) first generation migrants, refugees and others that become members of a nation are unlikely to trade their home culture for a new one, and conflicting cultures continue in second generation, as they often receive two or more inputs of culture (Hofstede, 2010, 398). It is not until the third generation, that the members become mostly integrated into a national culture (Hofstede, 2010, 398).

This thesis, will not go into a full debate of when someone qualifies as 'Danish', and takes the stand, that as long as someone describes themselves as 'Danish' when asked about their nationality, they then should be considered as part of the national culture. However, the lack of an explanation as to when one belongs to a culture provides the literature with a new criticism for Hofstede and the concept of culture as a set of mental programming. The differently learnt cultural aspects provide an explanation for why there were responses outside of what we had expected, as respondents could still generally be considered 'Danish' even though they did not all answer exactly the same. The distribution of answers to the culture questions could be a reflection of the diversity of universities, families or workplaces, where different organisational cultures could have caused the differences within the national culture. This could be expected as organisational cultures, although reflective of national culture, differ in their characteristics. Looking at the control variable testing in our analysis, there seems to be tendencies within universities of different attitudes, for example 'socialvstask', yet we cannot conclude from our research whether the university cultures themselves influenced these tendencies or if it was from another source that the respondents answered as they did. Despite the observable patterns within different universities, we could not conclude definitively that choice of schooling has an impact on culture as we had an uneven distribution of respondents from different universities, a limitation to our research despite our efforts to obtain more varied university representation. The contribution thus also points out a deficiency in Hofstede's research and an avenue for future research which will be proposed later.

### The impact of personalities

In our theoretical framework, we briefly introduced the concept of personality, as it must be differentiated from national culture. There are three elements that make up an individual and their

behaviour (Hofstede, 2010, 6). These are human nature, culture and personality, and they make up a pyramid of levels within an individual (Hofstede, 2010, 6). The border of where these elements differ is not discussed within the literature, and what we believe is a cause to the variance in answers to the cultural dimensions around the mean. Hofstede (2010) defines human nature as the universal and basic level of one's mental state, which is inherited by genes, and which drives all physical and basic psychological functioning (Hofstede, 2010, 6). Culture determines how the individual deals with the feelings that result from the human nature (Hofstede, 2010, 7). Personality traits of individuals are then what differentiates individuals from others, and personality is partly inherited and partly learned from a combination of culture and personal experiences (Hofstede, 2010, 7). Hofstede believes, that personality and culture are intertwined, as although there is a wide range of personalities within nations, the descriptions individuals provide of themselves are influenced by the national culture they are within (Hofstede, 2010, 40). One of the contributions of our findings is the assertiveness of the existence of personality without contradicting the national culture.

Variable name	Uncertainty avoidance	
	Shychange	Confidontknow
Amount of responses of 0	9	0
Amount of responses of 1	10	1
Amount of responses of 2	12	3
Amount of responses of 3	4	1
Amount of responses of 4	0	2
Amount of responses of 5	4	12
Amount of responses of 6	1	11
Amount of responses of 7	0	10
Mean	1.8	5.375
Direction hoped	0	7
Which is most predominant 1-5	3	3
What mean should be close to	2	5

*Figure 16: Excerpts from figure 8, illustrating our findings of uncertainty avoidance*

As exemplified by the figure above, an excerpt from our analysis section, we can see that although there is a variety of answers, the mean or average is still reflective of the expected answer for the dimension. One of the criticisms of Hofstede is that the dimension scores are not reflective of the

individual answers of individuals, that everyone shares the same culture (McSweeney, 2000, 93), and Hofstede's theory is said to ignore subcultures. However, we believe that our findings support Hofstede's (1980) claim that there may be subcultures that would differentiate individuals in some aspects, but that national culture highlights the common characteristics (Hofstede, 1980, 45), that are found in all individuals of the national culture. This also relates to the definition of culture that Hofstede (1980) provides, that national culture should be measured on an average to understand the 'national norm' (Hofstede, 1980, 45). So as long as the mean or average of the responses coincides with the predicted dimension average, then we believe that concluding that individual answers enforce the presence of personalities of our respondents would be justified. We acknowledge that a research ignores a lot of information if they disregard all information that is not a mean, so we decided to also look at the mode of the dimensions - where most of the responses lie, to increase the validity of the use of an average as the concluding aspect of the dimension presence. The mode responses of the dimensions<sup>61</sup>, except for the dimension long-term orientation, boost the average for more present dimensional, and support the use of the averages as an analytical conclusion. As a result of this conclusion, it could be interesting, if one could create a percentage of personality, to account for the variance and still be able to make valid statistics. The use of an average as a mechanism to determine whether the dimension is fulfilled, is also why we decided that the average for the femininity dimension illustrates a feminine culture as predicted.

The idea of having a personality measurement would also allow researchers to analyse if variance in responses was 'just' personality variance or if it was based on other aspects such as the argument behind the homogenous critique. This argument centres around whether or not national culture can exist in a vacuum made up of national borders, as introduced by Jones (2007) in our literature review (Jones, 2007, 5). In our analysis we found that the femininity dimension, which supposedly characterises the Danish culture the most, as explained by its predominance that we introduced in our theoretical framework, is the average that deviates the most from the predicted average. The variable 'femininity' shows a more feminine society than a masculine one, although with a mean of 5.075 it comes a little short of the expected mean of minimum 6. If one looks at the mode average the response

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<sup>61</sup> Taken from the charted responses in figure 8 and compared to the means and the predicted means in the same figure



with the highest rate is 6 with 13 responses, and 70% of the responses over the answer of 4 which would indicate the presence of relatively strong degree of femininity<sup>62</sup>. Yet, what happens if we look at some of the other variables that are often associated with Hofstede's description of a feminine society? One way in which we could look into whether or not there is a masculine society is by looking at the variable 'socialvtask', which represents the priorities that the individuals have. One would expect that feminine societies would be more interested in making sure that the process was satisfying and of good quality rather than getting tasks done and pushing for achievement (Hofstede, 1994, 4). Interestingly 50% of the responses are from 0-3 and 50% of the responses were from 4-7. This would indicate that Denmark illustrates tendencies from both ends of the spectrum. When looking at the average it shows a more feminine society, yet when looking at the mode the response where 9 respondents answered 2, which indicates quite a masculine mode. Thus, it could explain how there is the lower observable femininity than we had predicted, as this variable illustrates that meeting goals is still very important to the respondents. The dimension of femininity seems to be made up of various elements - the importance of life vs achievement of the individuals, and negotiation and compromise as a solution mechanism. The variable 'socialvtask' indicated that there are the masculine tendencies with one of the elements - task. So, what happens when the other element of femininity with the variable 'consensus'<sup>63</sup> is inspected? The variable 'consensus' has an average of 4.2, with a mode of 11 on the response 5, and 67.5% of the answers being over 4. There is a strong use of consensus, which could be an indication of a strong feminine culture by the use of negotiation and discussion. This shows that there exists both masculine and feminine tendencies within the MOs.

Our findings illustrate that Hofstede seems to ignore the idea that individuals can care both about meeting personal goals and achieving what is on the agenda, while still believing that it is important to have a good work life balance. We may argue, that with such large general tendencies, that there would be an alternative explanation rather than personality variance, since the deviance seems to affect multiple variables. This is where the idea of globalisation also comes in, allowing the argument that culture can no longer be contained within the borders of a nation, as previous criticism have stated, and possibly that globalisation has caused certain cultures to evolve in order to remain competitive.

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<sup>62</sup> See appendix 34 for tabulation of variable 'femininity'

<sup>63</sup> See appendix 35 for tabulation of variables 'consensus' and 'socialvtask'

Internationalisation has opened nations' borders to multinational corporations, and so the presence of competitiveness and pressure of achievement may be a result of Danes striving to 'keep up' with the international market. This does not necessarily mean, that Danes are cannot be characterised as feminine, nor that Danes cannot be described as Danish if they are competitive, we believe that competitiveness has become a part of the Danish culture without making it masculine. However, we cannot conclude the possible effects on culture if there is not developed a personality deviation percentage that allows research to explore when there actually is deviation and when there is 'just' personality.

### Critique of Schneider

The last contribution stems from a new critique of Schneider, as a result of the structured framework. The very structured framework of strategy formulation, which Schneider (1989) proposes was initially the reason why we chose to test this theory for this thesis. Since we were interested in gathering more extensive data and consequently be able to generalize the results, we were aware that a use of easily quantifiable theory is essential. However, an in depth exploration of Schneider's (1989) theory lead us to believe that the structural framework creates some flaws that have not been previously addressed by the literature. One of the criticisms stems from the rules that Schneider (1989) uses to build up the theory, which sometimes appear to contradict themselves in several points, without providing an explanation. For example, Schneider (1989) specifically claims that Danes scan more than Norwegians and the Swiss (Schneider, 1989, 155). However in this thesis we disregarded this statement for two reasons.

Firstly, claiming that a country is more or less likely to scan is relative. Danes may scan more than others but may still scan very little in general terms. Schneider (1989) does not provide any absolute values or a scale of scanning or any of the other steps, for others to be able to place Denmark on, for instance a scale of broad, active or systematic scanning. Schneider's (1989) theory therefore lacks proper scaling of the characteristics of individual steps. Instead the theory uses two extreme opposites, for instance; active vs. reactive type of scanning, these are two extremes which countries rarely position themselves on. This is something that Schneider acknowledges herself (Schneider, 1989, 162), and so it is more likely that majority of countries position themselves along the scale, and strategy

formulation is often an interplay between controlling and adapting characteristics derived from national culture (Schneider, 1989, 162). Schneider's (1989) theory thus seems to represent the 'ideal types' of strategy formulation rather than real life situations, which makes the theory extremely difficult to test for empirically. Our findings confirm this reality, as only one variable ('limitedtime') came close to an extreme, with an average of 6.05 where the extreme was 7<sup>64</sup>. All of our other variables lay closer to the middle. Thus, we think that just like Hofstede's (1983, 1994, 2010) theory, it would be interesting and possibly more reliable if Schneider (1989) elaborated upon the middle ground cases which prevail in real life, or if we could have produced a middle ground ourselves, like our adapted mean for culture. We believe that the use of eight point scales in our questionnaire was able to capture the missing information that Schneider (1989) did not provide, rather than relying on the extremes. However, in order to properly be able to provide a middle ground, we believe that a combination of qualitative and quantitative study would be necessary, where firstly a quantitative research similar to ours would be conducted, subsequently in order to examine exactly what kind of characteristics may be found in the mid ranges between controlling and adapting modes a qualitative study would take place.

Secondly, the statement about Danes scanning more than Norwegians and the Swiss (Schneider, 1989, 155), seems to contradict the 'rules' or reasoning of how culture can affect the strategic steps and elements. According to Schneider (1989), scanning differs in its degree of activeness, broadness and systematicity as a result of a countries perception of uncertainty, and environmental control (Schneider, 1989, 151). As Schneider states that "*conditions of uncertainty, administrators will spend more time and resources on environmental scanning and forecasting than where they are confident and have a good understanding of the situation*" (Schneider, 1989, 155). However, according to Hofstede Insights, Denmark is considered to have a very low uncertainty avoidance (Hofstede Insights, 2018), which correlates with high confidence levels and adaptability and should therefore scan rather less according to the quote. Thus, this statement made us distrust Schneider's (1989) claims, as we had to disregard the statement about Denmark, as we argued, that if we had to keep this statement, we would have to consider if the rest of the theory was also contradicting itself. The average on the variable 'additionalinfo' that was questioning the active vs reactive nature of scanning, was found to be dispersed more than we had predicted according to the overall theory and 'rules' for the relationship

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<sup>64</sup> See appendix 36 for sum of variable 'limitedtime'

described by Schneider (1989), a variance in responses that could possibly have been explained better by the seemingly ‘random’ statement about Danish scanning. Small contradictions and inconsistencies meant that some subjective interpretation of the theory had to be done, which risks misinterpreting and measuring the wrong elements. So a recommendation for any future research using Schneider's theory, would be to approach it with certain amount of caution and judgement or use the theory *a posteriori* to the data analysis, to indicate to what extent the theory coincides with the data.

Another criticism of Schneider’s (1989) theory is lack of sufficient definition of some characteristics provided in the theory. For example, according to figure 2, scanning may vary in the degree of not only activeness, broadness, systematicity but also formality. However Schneider (1989) does not mention the formality aspect anywhere else in her theory besides in this figure. The reader is therefore left to interpret this aspect intuitively. We avoided defining and testing formality of scanning depending on our own interpretation of it, as we could risk misinterpretation of Schneider’s (1989) thoughts. For this reason we completely disregarded this aspect of scanning.

## **Research Limitations**

This subsection will discuss the possible limitations which arose when conducting our research, as in order to answer the research question, our research must be reliable and valid. Thus the following section of our discussion will elaborate upon the implications of our methodology, theory and analysis on our findings.

One possible limitation of our research is attributed to one of the contributions that this thesis intended to add to the existing literature - an empirical based quantitative study of these nebulous concepts, with the ability to make generalisations of truth. In this literature realm, qualitative research has previously been depended on in order to provide an in-depth understanding that is not confined to numeric values. Had we followed previous research, our findings would likely have gathered information about the perceptions of strategy formulation and culture from a smaller sample of PK participants. Although that is a valid research interest, it would not answer the research question that this thesis intended to explore, the relationship and causal effect that one variable can have on another. A quantitative research allowed us to gather a larger pool of respondents than through interviews, and gave us the

ability to quantify a causal relationship. Understanding the risk of losing information from purely numbers, meant we pilot tested our questionnaire to ensure the variables were a valid measurement of the concepts we wanted to study, and asked multiple questions when it was necessary, to ensure the more abstract elements were captured fully.

Conducting a quantitative based research, findings can be limited by the incorrect or inappropriate choice of statistical tests in order to reach accurate and reliable findings. In order to investigate the effect 'x' has on 'y', and therefore a bivariate causal relationship, numerous different tests had to be conducted; univariate analysis, bivariate analysis and one multivariate analysis. There are various ways to examine such a relationship, and we chose bivariate OLS regression as it is the most appropriate test. This is because, regression analysis provides comprehensive information about the causal relationship such as the p-value, the direction of the relationship, the confidence level and the R-squared. In order to be able to perform OLS regression tests, a thorough examination of individual variables had to be done. For that reason univariate analysis examining every single variable individually was done. This is important in order to gain primary understanding of the patterns and characteristics of the sample and it is done by simple sum, tabulation, scatter plots and histogram commands. Even though, univariate analysis does not provide any information about the relationship between variables, which is essentially what we are looking for in this thesis, it has turned out to be very important for our research as it has helped us to confirm or reject our initial assumptions about cultural dimensions and also about the nature of strategy formulation steps. For example univariate analysis helped us see, that over all there is low uncertainty avoidance or that overall there is preference for qualitative information, however it did not provide us with any understanding of how are these variables related. In order to examine these individual relationships, we have conducted numerous bivariate analysis in form of tabulation and correlation tests. Fisher's exact test, being an equivalent of Chi2 test for small samples, was the simplest and most valid option. Correlation tests and Fisher's exact tabulation tests simply compare the correlation between the distributions between the two variables regardless of which one is dependent and which one is independent. STATA also provides the researcher with the p-value attached to the relationship and deems it either significant or insignificant.

Also, conducting a multivariate analysis was necessary in order to test for other possible explanatory variables, which might have a causal effect on the dependent variable - strategy formulation. This is done as *“any interesting dependent variable is caused by more than one factor”* (Kellstedt & Whitten, 2013, 52). We know that culture is not the one single variable that causes strategy formulation and that is why it explains only 44%. Multivariate regression is the only adequate test that accounts for more variables that collectively cause a phenomenon (Sønderskov, 2015, 184). In our case including the control variables in the multivariate regression improved the explanatory power only by 2%, we are therefore aware that 54% of how strategy is formulated is explained by other variables neglected in this study. Does this however mean that we have to disregard this study? Kellstedt and Whitten (2013) claim that *“so long as a reasonable case can be made that some uncontrolled- for Z might be related to both X and Y, we cannot conclude with full confidence that X indeed causes Y”* (Kellstedt & Whitten, 2013, 61). This implies, that we cannot claim with 100% certainty that ‘x’ causes ‘y’ however we may say that ‘x’ explains 44% of ‘y’. In general, the tests we conducted were the most adequate considering the nature of our data and the sample size and therefore deemed reliable.

Another limitation comes from the use of a single case study, considering the extreme nature of both Hofstede’s (1980, 1983, 1994, 2010) and Schneider’s (1989) work. The single study research design conforms with the resources available to us and the scope of the paper. The benefit of the single study is being able, as researchers, to gain more in depth understanding of a phenomena within one case, however considering our main theories, a single study may have missed some key information that would allow us to be more assertive in our findings and generalisations. As mentioned in the theoretical discussion, both Hofstede (1980, 1983, 1994, 2010) and Schneider (1989) lack scaling, depending on absolutivity in their theories - Schneider (1989) proposes two strategy formulation models derived from the national culture, where adapting and controlling models are extremes. Similarly, Hofstede’s (1994) cultural dimensions also reflect extremes (Hofstede, 1994, 3) and thus the best assessment of cultural positioning on these dimensional scales is by comparing different countries, and the scores by themselves do not carry as much explanatory power as comparison to other countries scores. A comparative study would allow research to demonstrate a scaling of these extremes present in both theories, which would add more support for the generalisations made rather than just that there was a middle ground found. We also believe that a comparative study would also provide Schneider’s (1989)

theory with more systematic testing, which was argued earlier in the theoretical discussion. By having findings based on the same countries rather than examples of findings inconsistently, it would allow for more future dependency on the generalisations.

Utilising only one case study to make generalisations, one should consider the influence that the chosen case study has had on the findings. An element that defines our research is the choice of NGO to study - DSF and its MOs under the process of PK, and it could be interesting to discuss if our research would show the same results if another case had been chosen. DSF and its MOs do not violate any definition of what an NGO is or what they 'should' be doing as NGOs, so purely from a theoretical standpoint there should be no issues in choosing another case and still gathering similar generalisations. Interestingly, potentially what could change the results that we found, is the volatile environment that the NGO works within. Considering how NGOs spring from a social need in a certain environment, if the environment changes the need for the NGO may also change. For example, we studied a membership NGO, which is both involved in advocacy and legislative activities rather than operational activities, so it could be interesting to see if the strategy formulation would be more influenced by the interest of outside donors, which membership NGOs may not be (Moore, 2000, 185). DSF is also a national NGO, despite their relationships with other international associations, which is what lead our choice of DSF, we wanted to study an NGO which was very embedded in a single national culture, and operating within one nation's border to improve the student lives of the individuals within that nation's border, helped us achieve that single culture study. However, an international NGO could have provided us with the comparative study that we have discussed above, and so it could be interesting to study an NGO that not only was influenced by multiple cultures but also that had to deal with multiple environments. One could imagine that a larger multinational operation could require more hierarchy which according to Schneider (1989) would affect the validation step in strategy formulation (Schneider, 1989, 158), and it could affect the information management - the first two steps in strategy formulation, with multiple sources of information on different environments.

#### Overall: Can we accept the alternative hypothesis?

Our findings left us with confusion about whether or not we are justified to accept our alternative hypothesis; *"There exists a positive relationship between the Danish culture and choice of strategic*

*formulation found within the MOs*". Our alternative hypothesis is based on our research question and overall hypothesis, and is centred around the positive relationship between national culture and strategy formulation. We argue, that our findings provide enough evidence to reject the null hypothesis; "*There exists no relationship between the Danish culture and strategic formulation found within the MOs*", yet rejecting the null hypothesis does not necessarily mean that we naturally accept our alternative hypothesis. The positive relationship between the Danish culture index and adapting index along with the positive correlations found when we made individual bivariate Fisher's exact tests, support our alternative hypothesis, however we cannot ignore the tests that showed no relationships. Throughout this discussion, we have considered the contributions that all our tests made, and explored explanations for why those relationships were not as theorised. De Vaus (2002) proposes an interesting viewpoint to situations where the actual results do not correlate with the theories, that weak relationships are more than likely in the realm of social science due to the fact that researchers' "*expectations are often unrealistic*" (De Vaus, 2002, 262). It is important to keep in mind that weak analytical relationships are also results that may provide a deep insight into the literature. Furthermore, the use of empirical testing is to look at findings that cannot just support the theory but also disprove it (De Vaus, 2010, 16). Our findings especially that the first two steps of strategy formulation are not a reflection of national culture, help the literature to be modified, extended or contradicted and make progress in the literature (De Vaus, 2002, 15). As a result of our findings, we could not accept our alternative hypothesis, as not all steps of strategy formulation are influenced by the Danish culture, however, we can provide a more deductive statement that we can accept; "*There exists a stronger relationship between the adapting ideal strategy formulation model than controlling one and Danish national culture, and relationships between cultural dimensions and the last three steps in strategy formulation*". Our findings lead to contributions that highlighted the unrealistic expectations that De Vaus (2002) describes, as both Schneider (1989) and Hofstede (1983, 1994, 2010) have in the section of our thesis been discussed to have based their work on extremes, without providing a middle ground that is more accurate. The discussion concludes the process of theory testing, that De Vaus (2010) claims theory based quantitative research should do, as the discussion becomes the assessment of the theory, which allows us to look at the future research and recommendations (De Vaus, 2010, 15).



## Recommendations for Further Research

After discussing our findings with the theoretical framework, we have come to several recommendations for further research. Although we believe, that this research is quite comprehensive, we are aware of possible future avenues, which could extend this research and further contribute to the literature. This subsection will therefore outline several points stemming from the discussion that could be investigated in the future. We are aware of the fact, that there are countless ways of twisting or extending a research, however we chose to focus on five issues, which we find the most relevant and interesting.

Firstly, as mentioned in the theoretical discussion, we believe that Schneider (1989) lacks a description of middle ground of the strategy formulation steps and their characteristics. In this research we were able to capture that by the use of an 8 point scale, however this does not provide us with an in-depth content description of the middle grounds. This is why we believe, that future research could consist of a combination of quantitative and qualitative research, where a quantitative research similar to ours would continue to quantify the middle ground and place the case of study on a scale of adapting vs controlling mode. Then in order to discover ‘what’ these middle scales look like content wise, a qualitative research could fill those gaps and contribute significantly to Schneider’s (1989) theory, with a more descriptive ‘what’ this middle ground looks like to outsiders. In this case, interviews with employees engaged in strategy formulation would be conducted in order to find out the ‘what’, that we disregarded in this study by focusing on the ‘how’ and ‘why’. This would also allow the analytical tool of predominant based averages for culture that we believe to have contributed, to be tested, which would improve the validity of such an analytical tool.

Stemming from our discussion, another issue worth investigating is an analysis of a particular issue or a campaign in a company/NGO, rather than the case study of the PK process we chose. We acknowledge Schneider’s (1989) claim that the strategy formulation process is recursive rather than once occurring (Schneider, 1989, 150). Assuming, that depending on a type of issue dealt with, the process of strategy formulation differs slightly, thus a research focusing specifically on one issue could possibly yield

more specific results. As in our research, respondents were asked to think in general terms about the processes they undergo at not a specific PK but PKs in general, the results may have been blurred by the generality of the questions. We assume, that in cases where surveys ask more specific questions such as: *“At the PK in spring 2018, while addressing (a specific issue), to what extent did you search for additional information besides the information given to you by DSF or your team?”*, respondents would receive better directions about what exactly the researcher is questioning. They would be able to make a judgement about their position/stance much more easily by being able to put themselves in the specific situation that they have been in at the specific time and place in their past. We believe that this would yield highly accurate results and at the same time it would allow the researcher to investigate the thought processes of interviewees when formulating strategy. We also believe, it could be interesting to undergo the same research on a different NGOs or even a for-profit organisations, to examine the extent to which an organisational culture and mission can influence the relationship that the research intends to investigate. As in this thesis, we briefly engaged in the theoretical distinction of national and organisational culture, this research lacks this distinguishment on the empirical basis. Studying different companies within the same national culture would also be able to explore the effect that globalisation could have, considering how national culture may be changing if corporate culture has to deal with the pressures of internationalisation and isomorphism.

A third future avenue, is to test national culture comparatively. As discussed in the section above, Hofstede's (1983) cultural dimensions may be difficult to assess accurately when examined separately. The relativity of the dimensions imply the necessity to compare the dimensional values of 2 or more countries in order to be able to understand the diversity of the cultural dimension. The recommendation for further research stemming from this point is conducting a comparative quantitative study of two similar organisations in terms of size, industry, structure etc. These two organisations should be from two different countries which according to the theory are supposedly on the opposite sides of the adapting vs controlling scale. In this case, ethnocentric bias would be a great risk and thus in order to avoid it, a culturally mixed research team would be necessary (Adler in Schneider, 1989, 163). Similarly, a comparative study of two or more organisations within one country would be interesting to examine for the same reasons.

One aspect that seems important to address with future research is the ability to distinguish from one's findings if variances or deviations and outlier responses, are a result of individual's personality traits, or if the findings are illustrating a tendency and extension to research. Thus, as we discussed, it would be interesting if it was possible to create a personality deviation percentage, so that statistics in future could say that any responses that deviated a percent amount from the average were no longer findings that corresponded to personality, but something worth analysing, which could illustrate when alternative explanations and variables that need to be considered. This would improve the reliability of findings and make generalisations more accurate.

The last point of future research that we believe can be taken from our research, is a more concrete understanding of the different stages of cultural learning. Hofstede (1994) implies, that there are different stages of learning national culture and different groups that teach the culture, yet does not expand on when the dimensions are learnt or which stage of learning can be most imperative to learning different aspects of the dimensions. Based on our findings and research, we were unable to isolate the different stages and groups, yet it could be interesting to test culture at different stages of the individual's life, for example, before an individual enters schooling and before entering the workforce, to see if there are different aspects and tendencies that emerge. It could also be interesting to test individual's response to culture questions based on where their family is from, what choice they made in schooling and the roots and national/international dealings of the place of employment, to try to understand how forcefully the groups can implement a certain national culture.

## Conclusion

Our endeavour to investigate the relationship between strategy formulation and Danish culture within the organisational framework of an NGO, the MOs helped us to prove, that there does exist a relationship that was predicted according to the theory. Yet our findings helped us further the existing literature by providing evidence that suggests, that national culture is only partly an explanation for the strategy formulation process. We set out this thesis to understand how choices are made in more detail, and what could influence different elements of gaining information and forming it, in order to make choices that guide the volunteers of the largest student union in Denmark. We have succeeded in proving that Danish culture results in a strategy formulation that is more adaptive than controlling, and that in regards to national culture there is a larger focus on interpreting information, validating the information and establishment of priorities, rather than the strategy formulation as a whole. Our study has also allowed us to question the characteristics that Hofstede (Hofstede Insights, 2018) has described Denmark as, exploring a more realistic picture of the Danish culture, with a larger focus on what can influence national culture rather than just what national culture influences. Our findings offer a more realistic view on the dimensions, with the aid of an adjusted average analysis, which can add to the information on middle ground scores on the characteristics. Our research question;

*“To what extent is strategy formulation influenced by Danish culture of a national NGO?”*

is still answered, despite that we could not accept our hypothesis and believe that our alternative hypothesis can be proven only partially.

*General hypothesis: “The strategic formulation steps that the MOs undergo during the PK process is a reflection of the Danish national culture”*

*Ha: “There exists a positive relationship between the Danish culture and choice of strategic formulation found within the MOs”*

We believe, that our thesis instead enable us to make a more truthful statement; *“There exists a stronger relationship between the adapting ideal strategy formulation model than controlling one and Danish national culture, and relationships between cultural dimensions and the last three steps in strategy formulation”*. In addition we were able to reject our null hypothesis;

*Ho: "There exists no relationship between the Danish culture and strategic formulation found within the MOs"*

Having come to a conclusion of how our research has been answered, an interesting question is what can this research be used for? We have pointed out where our literature contradicts, confirms and extends current literature, and what contributions this thesis has provided, yet how can the findings help other literature and future research? We believe that since there is a rise in NGOs and the power that they can provide to individuals and to institutions that want to engage with NGOs it is important to understand how their strategies are created and formulated so that the most constructive interaction can be reached. To understand which parts of the NGO's strategy individuals and institutions could influence, our research indicates that the scanning and selecting steps may be more 'available' for outside influences, whereas national culture has a larger influence on the last three steps of strategy formulation. We highlighted, that corporate culture could be an influence on these two first steps, but it is one of the possible explanations since that was not the focus of this thesis. National culture, as argued by Hofstede (1983), is not something that can easily be changed as it is part of an institution (Hofstede, 1983, 76-7), and thus as an outsider wanting to interact with the NGO, for example a corporation or government, it is thus useful to know, what can and cannot be changed. We expect that any outsider who is not a member of the national culture, but has to interact with the strategy formulation process, having a deeper understanding of how the process is influenced by various elements, would increase the ability to have a successful interaction with the strategy formulation process. This study may also help foreign organisations to understand how their own strategy formulation process may have to be adapted when entering a Danish market, if they intend to hire any local workers or gain a local business partner. Strategy formulation determines how an organisation 'knows' and thus responds to the environment that the organisation is in, with national culture creating certain rules on relationships to the environment and to people (Schneider, 1989, 149). So understanding how these two concepts interact is very important to successfully exist within one's environment and be able to change when there are shifts in the environment, as change is inevitable, especially in the globalised world that most organisations exist within.

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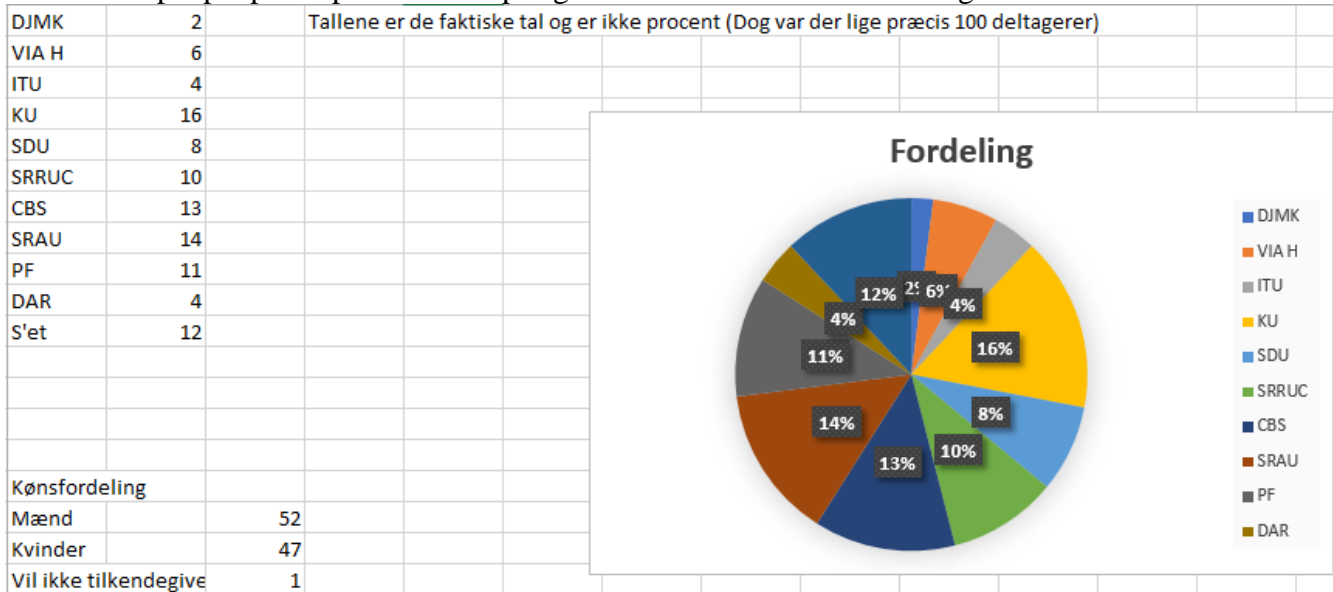
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## Appendix

### Appendix 1: Notes taken from meeting with a member of the executive board at DSF prior to survey, with the intention to gain more information on DSF and PK.

- DSF is an advocacy and legislative NGO
- National NGO with some international relationships and involvement such as relationship with ZINAZU and involvement in EU unions
- There are three types of education: Small, medium and long-term education. DSF only represents long-term education that's only academic -> not anyone doing a non-research based educations eg, pedago or nursing
- They also represent art schools
- They don't represent shorter educations due to historical reasons, it's simply not done before
- DSF is the most present and biggest for attention because of their representation and university students are more involved in the political stage
- DSF gains it's legitimacy by having 16 MOs (Member organisations), and each MO is a legitimate union of their university
- Issues that are covered by the political conference (PK) is what is covered by the policy paper, portraying what students' voices about a certain topic is, mostly the topics are chosen by the previous discussions at PK but can also be done by the board
- The board is called the landsforum (LF), they meet once a month
- The FU is the executive committee - it is made up of 5 people whom are full time paid employees
- There are also a few paid staff that are paid all the rest are unpaid volunteers
- PK and the general assembly are hosted biannually
- At the fall PK the MOs and participants elect the executive committee
- The policy paper given to PK is usually the last step before it become part of DSF.
- Policy papers can last 4 years and the they need to be revised
- There are 7 stages that the policy paper goes through:
  - 1. The Policy paper goes through the committee, depending on what the policy paper is it goes through different parts of the committee
  - 2. FU will then draft a policy paper
  - 3. 1st draft of the policy paper then goes to LF and back again with changes
  - 4. This proces Fos goes back and forth until there are no more proposed changes
  - 5. Then two weeks before PK it gets sent out to the MOs
  - 6. The leaders of the MOs then will meet twice after meeting with their MOs to indicate what changes might be proposed and how the MOs feel about the policy paper
  - 7. Then PK starts and the policy paper is discussed and in the end changes in voted in
- Statutes that DSF complies with are: operating manual, rules of procedure, code of conduct
- There are two charing team (Delegenter) at PK, that act as the referees to keep order, to keep the internal law, and they can overrule a decision made by the MOs. However, all the MOs can overrule the charing team by voting mistrust with majority rule in the charing team.
- DSF pays for PK partially, the rest is paid by the hosting MO
- MOs also pay to be part of PK (membership) and DSF

- 103 people participated in the spring of 2018 at the PK as MO delegates



Appendix 2: Detailed program and deadlines of PK along with other useful excerpts from the information given to all participants of the last PK in the Spring of 2018

**Friday**

14.30-15.30: Arrival and check in  
 15.30-16.15: Opening of the political conference, formalities and practical messages  
 16.15-17.15: Opening debate and presentation of proposals  
 17.15-19.15: Preparatory policy item  
 19.15-20.15: Dinner and delegation leader meeting. Introduction to DSF and PK for new participants.  
 20.15-21.00: Delegation meetings  
 21.00-21.45: Social activity by PF  
 21.45-22.15: Introduction to DSF and PK for new delegates  
 21.45-01.00: Hygge  
 22.00: **Deadline for amendments to the policy paper and amendments to amendments for the Position Paper**

**Saturday**

08.00-09.30: Breakfast and delegation meetings  
 09.30-11.30: Position Paper  
 11.30-12.30: Delegation leader meeting and social activity by PF  
 12.30-13.30: Lunch  
 13.30: **Deadline for amendments to amendments for the policy paper**  
 13.30-15.00: External presentations  
 15.00-16.00: Delegation meetings  
 16.00-16.20: Break  
 16.20-19.30: Policy paper and coffeebreak  
 19.30: **Deadline for amendments to amendments for the bylaws**  
 19.30-20.00: Preparations for dinner and party  
 20.00-?: Dinner and party

**Sunday**

09.00-10.30: Breakfast and delegation meetings  
 10.30-11.15: Resumption of the preparatory item  
 11.15-11.30: Break  
 11.30-12.30: General assembly including amendments for the bylaws  
 12.30-13.15: Lunch and voting (Owl-ceremony)  
 13.15-14.15: Membership fee calculation  
 14.15-15.00: Owl-ceremony and closing remarks

<b>INSTITUTION</b>	<b>NUMBER OF VOTES</b>
Arkitektskolen Aarhus	4
Copenhagen Business School (CBS)	15
Danmarks Tekniske Universitet	11
Designskolen Kolding	4
Det Fynske Kunstakademi	4
Det Jyske Kunstakademi	4
Det Kgl. Danske Kunstakademi - Billedkunst	4
Det Kgl. Danske Kunstakademis Skoler for Arkitektur, Design og Konservering	4
Det Kgl. Danske Musikonservatorium	4
IT-Universitetet i København	4
Københavns Universitet	30
Roskilde Universitet	8
Syddansk Universitet	21
VIA University College Horsens	4
Aalborg Universitet	19
Aarhus Universitet	27
<b>TOTAL NUMBER OF VOTES</b>	<b>167</b>

Appendix 3: Distribution of participating universities- sample vs population

University	Population	%	Sample	%	Diference
DJMK	2	2%	0	0%	-2%
VIA H	6	6%	0	0%	-6%
ITU	4	4%	0	0%	-4%
KU	16	16%	10	25%	-6%
SDU	8	8%	1	2,50%	-5,50%
SRRUC	10	10%	2	5%	-5%
CBS	13	13%	13	32,50%	19%
AU	14	14%	5	12,50%	-1,50%
DTU	11	11%	4	10%	-1%
DAR	4	4%	0	0%	-4%
AAU	12	12%	5	12,50%	0,50%
<b>TOTAL</b>	<b>100</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	

#### Appendix 4: Changing the direction of 'shychange' variable

```
. tab shychange
```

shychange	Freq.
0	9
1	10
2	12
3	4
5	4
6	1
<b>Total</b>	<b>40</b>

```
generate shychange2=.
replace shychange2=0 if shychange==7
replace shychange2=1 if shychange==6
replace shychange2=2 if shychange==5
replace shychange2=3 if shychange==4
replace shychange2=4 if shychange==3
replace shychange2=5 if shychange==2
replace shychange2=6 if shychange==1
replace shychange2=7 if shychange==0
```

```
. tab shychange2
```

shychange2	Freq.
1	1
2	4
4	4
5	12
6	10
7	9
<b>Total</b>	<b>40</b>

#### Appendix 5.1: Matrix correlation of the variables for the Danish culture index variables

```
. pwcorr myvoicematters decisioninvolvement shychange2 confidontknow longterm opinion femininity
```

	myvoic~s	decisi~t	shycha~2	confid~w	longterm	opinion	femini~y
myvoicemat~s	1.0000						
decisionin~t	0.3059	1.0000					
shychange2	0.0033	0.1818	1.0000				
confidontk~w	0.2361	0.1126	0.0818	1.0000			
longterm	0.2514	0.1346	-0.0229	0.1405	1.0000		
opinion	0.0713	-0.1522	0.2063	0.2655	0.2530	1.0000	
femininity	-0.1223	0.1603	0.3022	0.0395	0.2362	0.1373	1.0000

#### Appendix 5.2: Alpha test of the variables for the Danish culture index



Test scale = mean(unstandardized items)

Average interitem covariance: .3904762  
 Number of items in the scale: 7  
 Scale reliability coefficient: 0.5140

Test scale = mean(unstandardized items)

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
myvoicemat~s	40	+	0.5067	0.2115	.3984615	0.4953
decisionin~t	40	+	0.3770	0.2181	.4593162	0.4932
shychange2	40	+	0.4599	0.2166	.4181197	0.4888
confidontk~w	40	+	0.5203	0.2954	.3787179	0.4584
longterm	40	+	0.6041	0.3353	.3211111	0.4340
opinion	40	+	0.5844	0.2798	.3424786	0.4636
femininity	40	+	0.4646	0.2215	.4151282	0.4869
Test scale					.3904762	0.5140

Appendix 6.1: Matrix correlation of the variables for the controlling strategy formulation index (after dropped the variables 'politicalcoalitionc', 'futurepast', 'limitedtime', 'prefershort' and 'socialtask')

	additi~o	suffic~o	qualqu~c	person~c	bureau~y	person~t	induct~e	consen~s	histor~c	prefer~c
additional~o	1.0000									
sufficient~o	-0.3314	1.0000								
qualquantc	0.0816	-0.2232	1.0000							
personalim~c	0.2617	-0.2478	0.5614	1.0000						
bureaucracy	0.2787	-0.3254	0.4241	0.4146	1.0000					
personaled~t	0.2972	-0.2830	0.2818	0.1223	0.1754	1.0000				
inductive	-0.0283	0.1224	-0.1348	0.0784	-0.3089	-0.1472	1.0000			
consensus	-0.0764	0.3531	-0.4317	-0.2801	-0.2957	-0.2124	0.2106	1.0000		
historical~c	-0.0536	-0.2069	0.3319	0.3904	0.0526	0.0721	-0.1892	-0.4085	1.0000	
prefershortc	0.1281	-0.2846	0.3401	0.0963	0.1107	0.3109	-0.1571	-0.1566	0.4107	1.0000

Appendix 6.2: Alpha test of the variables for the controlling strategy formulation index (after dropped the variables 'politicalcoalitionc', 'futurepast', 'limitedtime', 'prefershort' and 'socialtask')

Test scale = mean(unstandardized items)

Average interitem covariance: .9304986  
 Number of items in the scale: 10  
 Scale reliability coefficient: 0.7478

Test scale = mean(unstandardized items)

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
additional~o	40	+	0.4523	0.2750	.9892094	0.7483
sufficient~c	40	+	0.6072	0.4789	.9028668	0.7174
qualquantc	40	+	0.6787	0.5641	.8562322	0.7045
personalim~c	40	+	0.5811	0.4551	.9256766	0.7213
inductivec	40	+	0.4113	0.2369	1.017913	0.7527
consensusc	40	+	0.6208	0.4803	.8789352	0.7161
historical~c	40	+	0.5248	0.3860	.9555734	0.7305
bureaucracy	40	+	0.6191	0.4802	.8819444	0.7163
prefershortc	40	+	0.5291	0.3881	.951015	0.7302
personaled~t	40	+	0.5274	0.3763	.9456197	0.7320
Test scale					.9304986	0.7478

Appendix 6.3: Matrix correlation of the variables for the adaptive strategy formulation index after variables 'socialvstaska', limitedtimea', 'futurepasta' and 'politicalcoalition' are taken out)

	person~a	bureau~a	additi~a	histor~s	consen~s	induct~e	person~l	qualqu~t	suffic~o	prefer~t
personaled~a	1.0000									
bureaucracya	0.1754	1.0000								
additional~a	0.2972	0.2787	1.0000							
historical~s	0.0721	0.0526	-0.0536	1.0000						
consensus	0.2124	0.2957	0.0764	0.4085	1.0000					
inductive	0.1472	0.3089	0.0283	0.1892	0.2106	1.0000				
personalim~l	0.1223	0.4146	0.2617	0.3904	0.2801	-0.0784	1.0000			
qualquant	0.2818	0.4241	0.0816	0.3319	0.4317	0.1348	0.5614	1.0000		
sufficient~o	0.2830	0.3254	0.3314	0.2069	0.3531	0.1224	0.2478	0.2232	1.0000	
prefershort	0.3109	0.1107	0.1281	0.4107	0.1566	0.1571	0.0963	0.3401	0.2846	1.0000

Appendix 6.4: Alpha test of the variables for the adaptive strategy formulation index (after variables 'socialvstaska', 'limitedtimea', 'futurepasta' and 'politicalcoalition' are taken out)

Test scale = mean(unstandardized items)

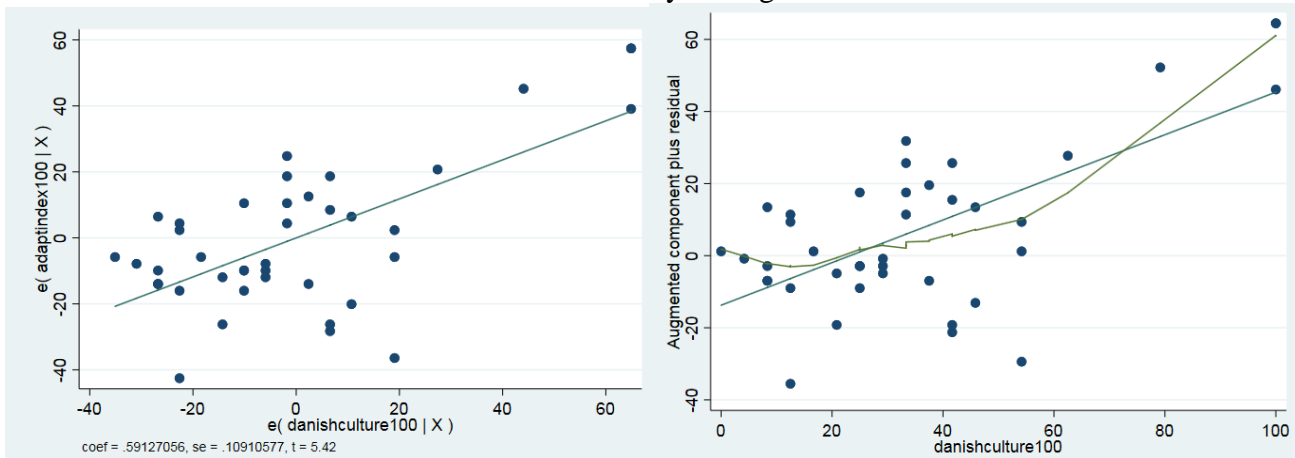
Average interitem covariance: .9304986  
 Number of items in the scale: 10  
 Scale reliability coefficient: 0.7478

Test scale = mean(unstandardized items)

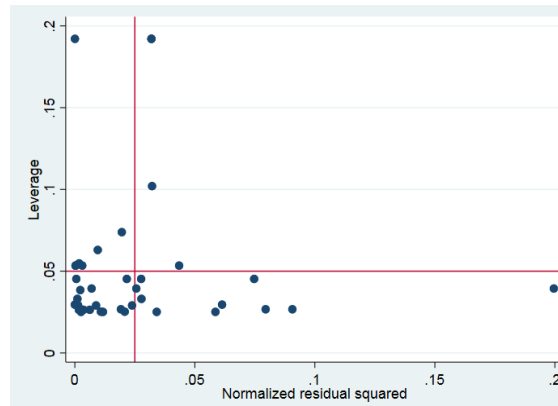
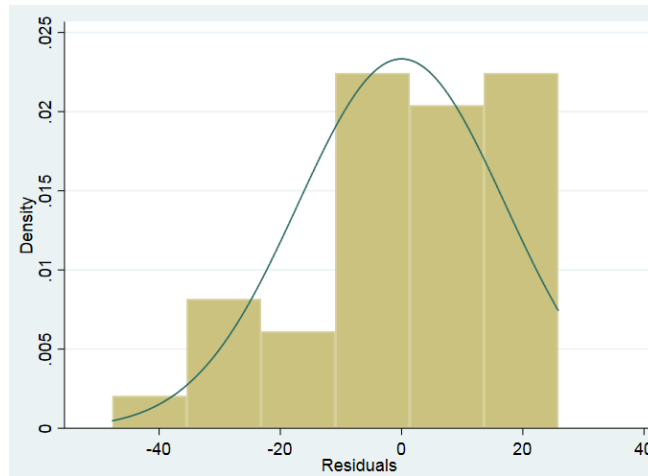
Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem covariance	alpha
personaled~a	40	+	0.5274	0.3763	.9456197	0.7320
bureaucracya	40	+	0.6191	0.4802	.8819444	0.7163
additional~a	40	+	0.4523	0.2750	.9892094	0.7483
historical~s	40	+	0.5248	0.3860	.9555734	0.7305
consensus	40	+	0.6208	0.4803	.8789352	0.7161
inductive	40	+	0.4113	0.2369	1.017913	0.7527
personalim~l	40	+	0.5811	0.4551	.9256766	0.7213
qualquant	40	+	0.6787	0.5641	.8562322	0.7045
sufficient~o	40	+	0.6072	0.4789	.9028668	0.7174
prefershort	40	+	0.5291	0.3881	.951015	0.7302
Test scale					.9304986	0.7478

Appendix 7: Assumptions testing

Linearity testing



Normally distributed residuals testing



Tests for influential outliers

```
. summarize cooks if cooks>(4/e(N))
```

Variable	Obs	Mean	Std. Dev.	Min	Max
cooks	3	.1729945	.009544	.161974	.1785047

	nationality	age	gender	confidontk-w	myvoicemat-s	decisionin-t	opinion	femininity	longterm	shychange	university	position
14	1	27	0	6	7	5	2	6	5	0	1	Volunteer (part of an MO)
27	1	26	1	7	7	7	7	7	7	0	5	Volunteer (part of an MO)
38	1	24	0	7	7	7	7	7	7	0	1	Volunteer (part of an MO)

```
. sum _dfbeta_1 if abs(_dfbeta_1)>2/sqrt(e(N))
```

Variable	Obs	Mean	Std. Dev.	Min	Max
_dfbeta_1	4	.270992	.4470016	-.3816047	.5610823

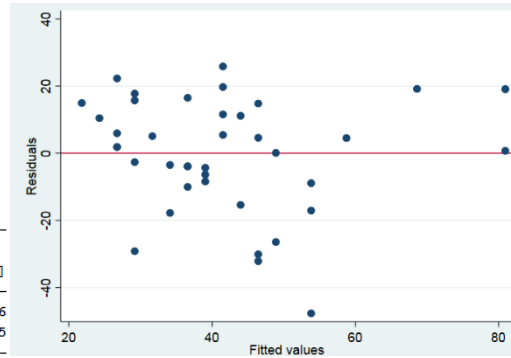
	nationality	age	gender	confidontk-w	myvoicemat-s	decisionin-t	opinion	femininity	longterm	shychange	university	position
14	1	27	0	6	7	5	2	6	5	0	1	Volunteer (part of an MO)
17	1	25	1	6	6	6	7	6	7	1	2	Volunteer (part of an MO)
27	1	26	1	7	7	7	7	7	7	0	5	Volunteer (part of an MO)
38	1	24	0	7	7	7	7	7	7	0	1	Volunteer (part of an MO)

Tests for Homoscedasticity

end of do-file

```
. do "C:\Users\kajo13ag\AppData\Local\Temp\STD348_000000.tmp"
. reg adaptindex100 danishculture100,robust
```

```
Linear regression      Number of obs   =      40
                      F(1, 38)           =     32.22
                      Prob > F          =     0.0000
                      R-squared         =     0.4359
                      Root MSE       =     17.322
```



adaptindex100	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
danishculture100	.5912706	.1041734	5.68	0.000	.3803825 .8021586
_cons	21.79496	3.993189	5.46	0.000	13.71117 29.87875

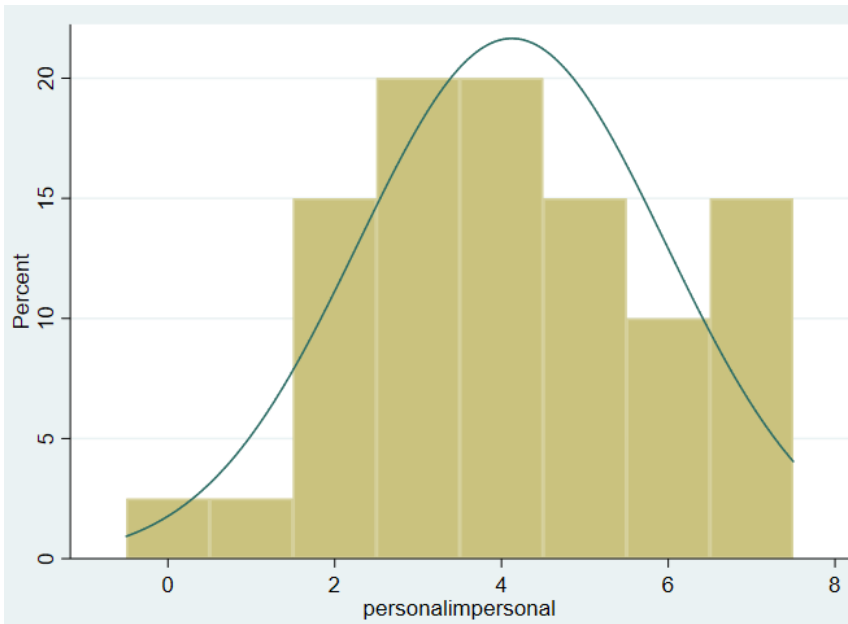
Appendix 8: Multivariate regression of our adaptindex vs 'danishcultureindex100' with control variables 'age', 'gender', 'university' and 'attendedpk'

```
. reg adaptindex100 danishculture100 age gender university attendedpk
```

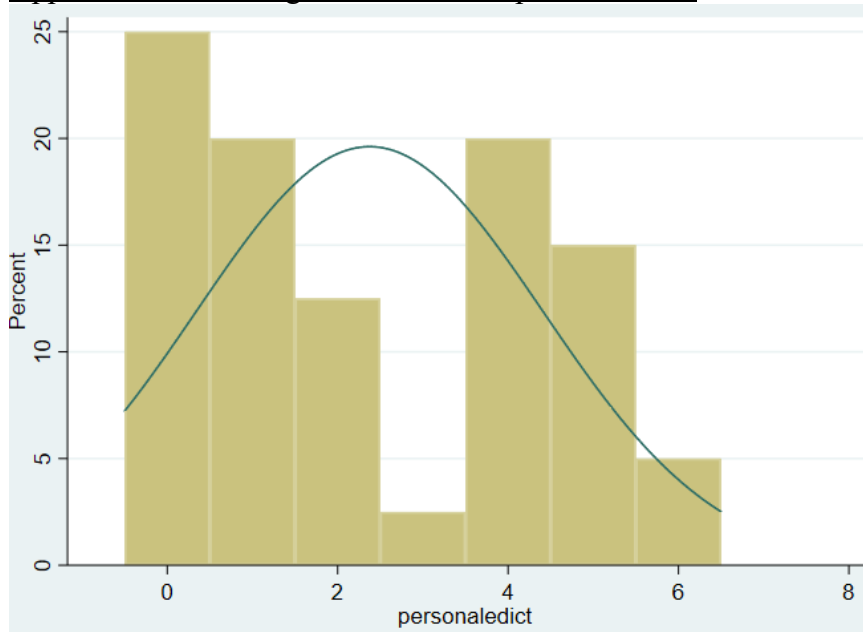
Source	SS	df	MS	Number of obs	=	40
Model	9262.18233	5	1852.43647	F(5, 34)	=	5.75
Residual	10950.6457	34	322.077816	Prob > F	=	0.0006
				R-squared	=	0.4582
				Adj R-squared	=	0.3786
Total	20212.8281	39	518.277643	Root MSE	=	17.947

adaptindex100	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
danishculture100	.5804193	.1215711	4.77	0.000	.3333572 .8274814
age	-1.010017	1.763718	-0.57	0.571	-4.594323 2.574289
gender	1.981874	5.95483	0.33	0.741	-10.1198 14.08354
university	-.8823902	1.630879	-0.54	0.592	-4.196736 2.431955
attendedpk	-.7296294	1.451323	-0.50	0.618	-3.679072 2.219813
_cons	50.62952	39.24776	1.29	0.206	-29.13152 130.3906

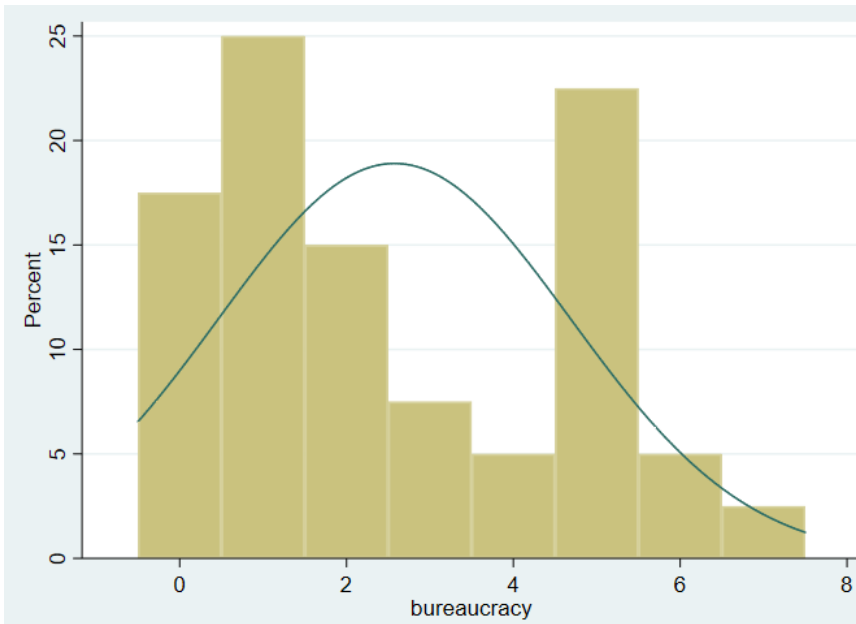
Appendix 9: Histogram of variable 'personalimpersonal'



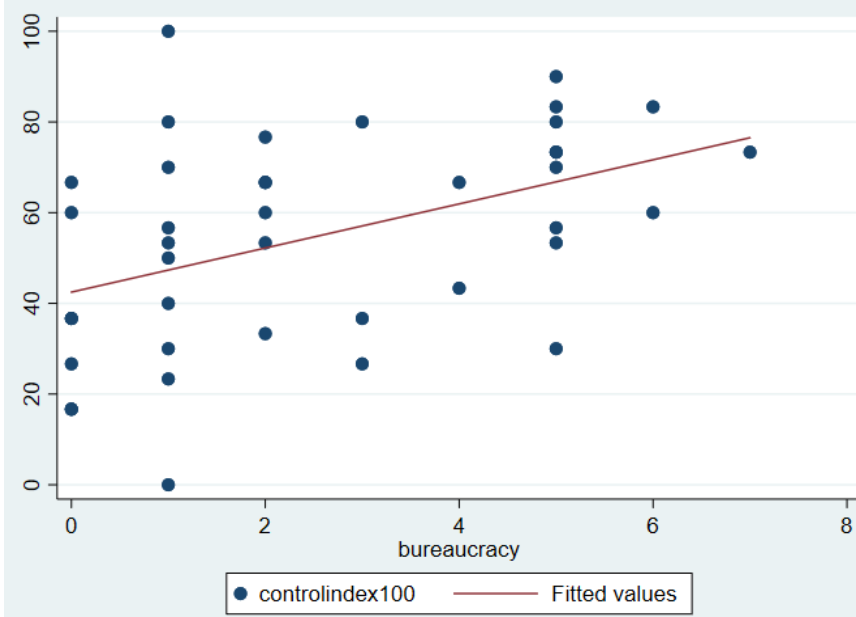
Appendix 10.1: Histogram of variable 'personalect'



Appendix 10.2: Histogram of variable 'bureaucracy'



Appendix 11.1: Scatter plot of the relationship between 'controlindex100' and 'bureaucracy'



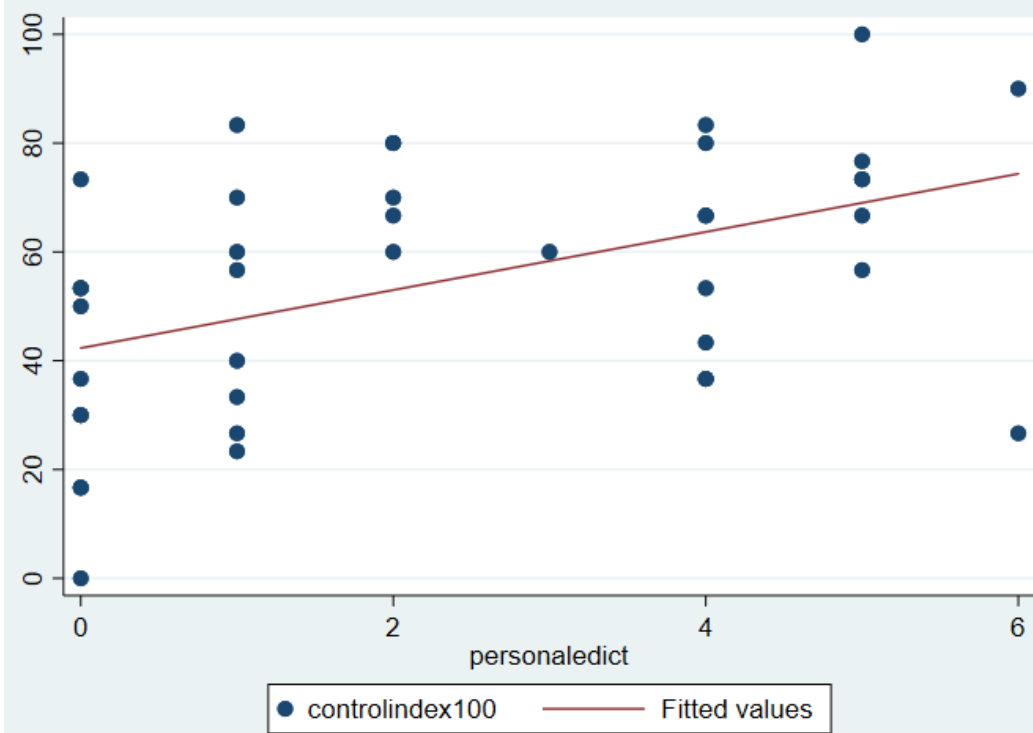
Appendix 11.2: Regression of 'controlindex100' and 'bureaucracy'

. reg controlindex100 bureaucracy

Source	SS	df	MS	Number of obs	=	40
Model	4108.90561	1	4108.90561	F(1, 38)	=	9.26
Residual	16868.8725	38	443.917697	Prob > F	=	0.0042
				R-squared	=	0.1959
				Adj R-squared	=	0.1747
Total	20977.7781	39	537.891746	Root MSE	=	21.069

controli~100	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
bureaucracy	4.86261	1.598297	3.04	0.004	1.627026 8.098194
_cons	42.47878	5.294925	8.02	0.000	31.75976 53.1978

Appendix 11.3: Scatter plot of the relationship between ‘controlindex100’ and ‘personal edict’



Appendix 11.4: Regression of ‘controlindex100’ and ‘personal edict’



```
. reg controlindex100 personaledict
```

Source	SS	df	MS	Number of obs	=	40
Model	4600.89503	1	4600.89503	F(1, 38)	=	10.68
Residual	16376.8831	38	430.970607	Prob > F	=	0.0023
				R-squared	=	0.2193
				Adj R-squared	=	0.1988
Total	20977.7781	39	537.891746	Root MSE	=	20.76

controli~100	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
personaled~t	5.33953	1.634202	3.27	0.002	2.031261 8.647799
_cons	42.31862	5.08313	8.33	0.000	32.02836 52.60887

#### Appendix 12: Tabulation of variables 'gender' and 'socialvtaskd'

```
. tabulate gender socialvtaskd
```

gender	socialvtaskd_dum		Total
	0	1	
0	7	11	18
1	13	9	22
Total	20	20	40

#### Appendix 13: Fisher's exact test of variables 'femininity' and 'socialvtaskd'

femininity	socialvtaskd_dum		Total
	0	1	
1	1	0	1
2	1	2	3
3	1	2	3
4	4	1	5
5	7	1	8
6	6	7	13
7	0	7	7
Total	20	20	40

Fisher's exact = 0.006

#### Appendix 14: tabulation of variables 'gender' and 'fempersonas'

```
. tabulate gender fempersonas, exact
```

```
Enumerating sample-space combinations:
```

```
stage 4: enumerations = 1
```

```
stage 3: enumerations = 2
```

```
stage 2: enumerations = 9
```

```
stage 1: enumerations = 0
```

gender	fempersonas				Total
	1	2	3	4	
0	1	1	4	12	18
1	0	5	9	8	22
Total	1	6	13	20	40

```
Fisher's exact = 0.095
```

Appendix 15: Tabulation of variables 'gender' and 'confidontknow'

```
. tabulate gender confidontknow, exact
```

```
Enumerating sample-space combinations:
```

```
stage 7: enumerations = 1
stage 6: enumerations = 2
stage 5: enumerations = 3
stage 4: enumerations = 7
stage 3: enumerations = 8
stage 2: enumerations = 15
stage 1: enumerations = 0
```

gender	confidontknow					Total
	1	2	3	4	5	
0	1	2	1	1	3	18
1	0	1	0	1	8	22
Total	1	3	1	2	11	40

gender	confidontknow		Total
	6	7	
0	5	5	18
1	7	5	22
Total	12	10	40

```
Fisher's exact = 0.664
```

Appendix 16: Tabulation of variables 'gender' and 'uapersonas'

```
. tabulate gender uapersonas, exact
```

```
Enumerating sample-space combinations:
```

```
stage 4: enumerations = 1
```

```
stage 3: enumerations = 2
```

```
stage 2: enumerations = 3
```

```
stage 1: enumerations = 0
```

gender	uapersonas				Total
	1	2	3	4	
0	0	1	7	10	18
1	1	3	9	9	22
Total	1	4	16	19	40

```
Fisher's exact = 0.727
```

Appendix 17: Tabulation of variables 'gender' and 'personalimpersonal'

```
. tabulate gender fempersonas, exact
```

Enumerating sample-space combinations:

stage 4: enumerations = 1

stage 3: enumerations = 2

stage 2: enumerations = 9

stage 1: enumerations = 0

gender	fempersonas				Total
	1	2	3	4	
0	1	1	4	12	18
1	0	5	9	8	22
Total	1	6	13	20	40

Fisher's exact = 0.095

```
. tabulate gender personalimpersonal
```

gender	personalimpersonal					Total
	0	1	2	3	4	
0	1	0	3	5	2	18
1	0	1	3	3	6	22
Total	1	1	6	8	8	40

gender	personalimpersonal			Total
	5	6	7	
0	2	2	3	18
1	4	2	3	22
Total	6	4	6	40

#### Appendix 18: Tabulation of variables 'gender' and 'consensusd'

```
. tab gender consensusd
```

gender	consensusd_dum		Total
	0	1	
0	9	9	18
1	4	18	22
Total	13	27	40

#### Appendix 19: Tabulation of variables 'attendedpk' and 'additionalinfo'

```
. tab attendedpk additionalinfod
```

attendedpk	additionalinfod_dum		Total
	0	1	
1	4	3	7
2	3	3	6
3	10	3	13
4	2	2	4
5	2	2	4
6	2	0	2
8	1	1	2
9	0	1	1
11	0	1	1
Total	24	16	40

Appendix 20: Tabulation of variables 'university' and 'socialvstaskd'

```
. tab university socialvstaskd
```

university	socialvstaskd_dum		Total
	0	1	
1	4	7	11
2	3	1	4
3	1	4	5
4	1	4	5
5	10	3	13
6	1	0	1
7	0	1	1
Total	20	20	40

Appendix 21: Tabulation of variables 'university' and 'femininity'

```
. tab university femininity
```

university	femininity					Total
	1	2	3	4	5	
1	0	1	0	1	1	11
2	0	0	0	0	2	4
3	0	1	1	0	1	5
4	0	0	1	1	0	5
5	1	1	1	2	4	13
6	0	0	0	1	0	1
7	0	0	0	0	0	1
Total	1	3	3	5	8	40

university	femininity		Total
	6	7	
1	6	2	11
2	2	0	4
3	0	2	5
4	2	1	5
5	2	2	13
6	0	0	1
7	1	0	1
Total	13	7	40

Appendix 22: Tabulation of variables 'university' and 'personaledictd'

```
. tab university personaledictd
```

university	personaledictd_dum		Total
	0	1	
1	6	5	11
2	4	0	4
3	3	2	5
4	4	1	5
5	6	7	13
6	1	0	1
7	0	1	1
Total	24	16	40

Appendix 23: Tabulation of variables 'university' and 'personalimpersonal'

```
. tab university personalimpersonald
```

university	personalimpersonald_d		Total
	um 0	1	
1	5	6	11
2	2	2	4
3	2	3	5
4	2	3	5
5	4	9	13
6	0	1	1
7	1	0	1
Total	16	24	40

Appendix 24: Tabulation of variables 'opinion' and 'position'

```
. tab position opinion
```

position	opinion				Total
	0	1	2	3	
Other type of volun..	0	0	0	0	1
Paid member of DSF	0	0	1	1	2
Volunteer (part of ..	5	3	2	5	37
Total	5	3	3	6	40

position	opinion				Total
	4	5	6	7	
Other type of volun..	0	1	0	0	1
Paid member of DSF	0	0	0	0	2
Volunteer (part of ..	11	4	2	5	37
Total	11	5	2	5	40

Appendix 25: Tabulation of variables 'position' and 'consensusd'



```
. tab consensusd position
```

consensusd _dum	position			Total
	Other t..	Paid me..	Volunte..	
0	1	0	12	13
1	0	2	25	27
Total	1	2	37	40

Appendix 26: Tabulation of variable 'qialquant'

```
. tab qualquant
```

qualquant	Freq.	Percent	Cum.
0	3	7.50	7.50
1	2	5.00	12.50
2	7	17.50	30.00
3	13	32.50	62.50
4	3	7.50	70.00
5	4	10.00	80.00
6	4	10.00	90.00
7	4	10.00	100.00
Total	40	100.00	

Appendix 27: Sum of variable 'inductive'

```
. sum inductive
```

Variable	Obs	Mean	Std. Dev.	Min	Max
inductive	40	4.375	2.108438	0	7

Appendix 28.1: Sum of variable 'consensus'

```
. sum consensus
```

Variable	Obs	Mean	Std. Dev.	Min	Max
consensus	40	4	2.136376	0	7

Appendix 28.2: Sum of variable 'historicalprecedent'

```
. sum historicalprecedent
```

Variable	Obs	Mean	Std. Dev.	Min	Max
historical~t	40	4.05	1.880398	0	7

Appendix 28.3: Sum of variable 'politicalcoalition'

```
. sum politicalcoalition
```

Variable	Obs	Mean	Std. Dev.	Min	Max
politicalc~n	40	3.725	2.160099	0	7

Appendix 28.4: Sum of variable 'bureaucracy'

```
. sum bureaucracy
```

Variable	Obs	Mean	Std. Dev.	Min	Max
bureaucracy	40	2.575	2.110869	0	7

Appendix 28.5: Sum of variable 'personaledict'

```
. sum personaledict
```

Variable	Obs	Mean	Std. Dev.	Min	Max
personaled~t	40	2.375	2.034163	0	6

Appendix 29: Tabulation of variable 'futurepast'

```
. tab futurepast
```

futurepast	Freq.	Percent	Cum.
2	1	2.50	2.50
3	7	17.50	20.00
4	6	15.00	35.00
5	14	35.00	70.00
6	6	15.00	85.00
7	6	15.00	100.00
Total	40	100.00	

Appendix 30: Sum of variable 'futurepast'

```
. sum futurepast
```

Variable	Obs	Mean	Std. Dev.	Min	Max
futurepast	40	4.875	1.362266	2	7

Appendix 31: Tabulation of variables 'fempersonas' and 'socialvstask'

```
. tab fempersonas socialvstask
```

fempersonas	socialvstask					Total
	0	1	2	3	4	
1	0	0	1	0	0	1
2	0	0	2	0	0	6
3	2	3	3	3	0	13
4	1	0	3	2	1	20
Total	3	3	9	5	1	40

fempersonas	socialvstask			Total
	5	6	7	
1	0	0	0	1
2	2	1	1	6
3	0	2	0	13
4	3	4	6	20
Total	5	7	7	40

Appendix 32: Sums of variables 'decisioninvolvement', 'myvoicematters' and 'consensus'

```
. sum myvoicematters
```

Variable	Obs	Mean	Std. Dev.	Min	Max
myvoicemat~s	40	5.325	1.953137	0	7

```
. sum consensus
```

Variable	Obs	Mean	Std. Dev.	Min	Max
consensus	40	4	2.136376	0	7

```
. sum decisioninvolvement
```

Variable	Obs	Mean	Std. Dev.	Min	Max
decisionin~t	40	5.525	1.03744	4	7

Appendix 33: Sum of variable 'historicalprecedent'`. sum historicalprecedent`

Variable	Obs	Mean	Std. Dev.	Min	Max
historical~t	40	4.05	1.880398	0	7

Appendix 34: Tabulation of variable 'femininity'`. tab femininity`

femininity	Freq.	Percent	Cum.
1	1	2.50	2.50
2	3	7.50	10.00
3	3	7.50	17.50
4	5	12.50	30.00
5	8	20.00	50.00
6	13	32.50	82.50
7	7	17.50	100.00
Total	40	100.00	

Appendix 35: Tabulation of variables 'consensus' and 'socialvtask'

```
. tab socialvstask consensus
```

socialvsta sk	consensus					Total
	0	1	2	3	4	
0	2	0	1	0	0	3
1	0	1	0	0	0	3
2	1	1	2	0	2	9
3	0	0	0	0	4	5
4	0	0	1	0	0	1
5	1	0	0	0	0	5
6	0	0	2	0	0	7
7	0	0	0	1	0	7
Total	4	2	6	1	6	40

socialvsta sk	consensus			Total
	5	6	7	
0	0	0	0	3
1	1	1	0	3
2	3	0	0	9
3	1	0	0	5
4	0	0	0	1
5	1	3	0	5
6	5	0	0	7
7	0	2	4	7
Total	11	6	4	40

### Appendix 36: Tabulation of variable 'limitedtime'

```
. sum limitedtime
```

Variable	Obs	Mean	Std. Dev.	Min	Max
limitedtime	40	6.075	1.141018	2	7

## Appendix 37: Questionnaire

### PK participants

In our master thesis, we are looking into the process that PK participants went through in their meetings with their member organisations (MO) when they had to discuss the policy paper, come to agreements, make amendments and decision making on how they would vote.

Disclaimer: The responses are confidential, and results will be used in a statistical program to compare data to the theory of culture influences on strategy processes. Your MO participants nor DSF will not know how you answered any of these questions. There will be made no subjective judgement on the results of your responses.

### In the first section we want to just get to know you.

---

Please answer the next few questions about how you feel generally.

1. 1. What is your nationality?

\_\_\_\_\_

2. 2. How old are you?

\_\_\_\_\_

3. 3. What gender do you identify as?

*Mark only one oval.*

- Female  
 Male  
 Prefer not to say  
 Other

4. 4. To what extent, do you generally feel comfortable saying I don't know or asking for help or clarification in areas of a discussion that you are unsure of?

*Mark only one oval.*

	0	1	2	3	4	5	6	7	
Not comfortable at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Completely comfortable

5. 5. To what extent should leaders generally involve everybody in the decision making?

*Mark only one oval.*

	0	1	2	3	4	5	6	7	
No, decision should be entirely up to the leader	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Yes, it is important that everyone has a say

6. 6. Generally, do you consider your opinion more than opinions of others?

Mark only one oval.

	0	1	2	3	4	5	6	7	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Yes I do

7. 7. To what extent do you generally prioritize your well being, work life balance and job satisfaction over status, monetary and promotional gains.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Status, monetary and promotional gains are more important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	My well being is more important

8. 8. Generally, do you believe it is important to maintain long standing social traditions (such as Janteloven).

Mark only one oval.

	0	1	2	3	4	5	6	7	
It is not important at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Yes it is very important

9. 9. To what degree do you generally shy away from change.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Change is normal and nothing to be scared of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Change is scary

**In following questions please consider the meetings you have had with your member organisation before PK and during PK. We are interested in how you as an individual felt you and your group dealt with information, evaluated options and priorities and came to decisions.**

---

**10. 10. Which of the participant universities are you a member of?**

*Mark only one oval.*

- Arkitektskolen Aarhus
- Copenhagen Business School (CBS)
- Danmarks Tekniske Universitet
- Designskolen Kolding
- Det Fynske Kunstakademi
- Det Jyske Musikkonservatorium
- Det Kgl. Danske Kunstakademi - Billedkunst
- Det Kgl. Danske Kunstakademis Skoler for Arkitektur, Design og Konservering
- Det Kgl. Danske Musikkonservatorium
- IT-Universitetet i København
- Københavns Universitet
- Roskilde Universitet
- Syddansk Universitet
- VIA University College Horsens
- Aalborg Universitet
- Aarhus Universitet
- I am not a student in any of these universities

**11. 11. Position**

*Mark only one oval.*

- Volunteer (part of an MO)
- Other type of volunteer
- Paid member of DSF

**12. 12. What would you say you mainly do within DSF?**

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**13. 13. How many times have you attended the political conference?**

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14. 14. To what extent do you agree with this statement: I feel like my voice matters as much as the others in the MO meetings.

Mark only one oval.

	0	1	2	3	4	5	6	7	
No some are more important than others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Yes we all have equal say

15. 15. To what extent do you agree with this statement: I have searched for additional information besides the information given to me by DSF or my team.

Mark only one oval.

	0	1	2	3	4	5	6	7	
No additional searching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	A lot

16. 16. To what extent do you agree with this statement: I feel that the information given to me by DSF was sufficient for my understanding of the topic.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Not at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Complete understanding

17. 17. To what extent do you agree with this statement: I prefer to rely on qualitative information (opinions, values) over quantitative information (statistics, numerical data) when selecting information.

Mark only one oval.

	0	1	2	3	4	5	6	7	
I prefer quantitative information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I prefer qualitative information

18. 18. To what extent do you agree with this statement: I trust information given to me by personal connections at PK, rather than outside sources.

Mark only one oval.

	0	1	2	3	4	5	6	7	
I prefer impersonal sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I prefer personal sources

19. 19. To what extent do you agree with this statement: I prefer inductive reasoning (having evidence first before drawing conclusions) over deductive reasoning (applying conclusions to evidence) when determining what is true.

Mark only one oval.

	0	1	2	3	4	5	6	7	
I prefer deductive reasoning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I prefer inductive reasoning

20. 20. To what extent do you agree with the statement: In order to come to a decision in the group a consensus is necessary.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Do not agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

21. 21. To what extent do you agree with the statement: When reaching a group decision, I rely on opinions and voting trends about similar issues in the past.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Opinions from the past are not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Opinions from the past are important to consider

22. 22. To what extent do you agree with this statement: Our MO decisions are limited by regulations, formalized policies and code of conduct imposed by DSF.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Disagree (bureaucracy does not limit us)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree (there are a lot of limitations)

23. 23. To what extent do you agree with this statement: The authoritative figure in my group used his/ her authoritative power to overrule the group decision.

Mark only one oval.

	0	1	2	3	4	5	6	7	
No power	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	A lot of power

24. 24. To what extent do you agree with this statement: The MOs use their political power and size in order to sway other votes.

Mark only one oval.

	0	1	2	3	4	5	6	7	
Do not agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

25. 25. To what extent do you agree with this statement: In the MO meetings we emphasize future instead of past.

Mark only one oval.

0	1	2	3	4	5	6	7	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

26. 26. To what extent do you agree with this statement: In general time is limited and therefore we have to work fast.

Mark only one oval.

0	1	2	3	4	5	6	7	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

27. 27. To what extent do you agree with this statement: If I am uncertain about all the details of the issue I prefer short term solutions over long term solutions.

Mark only one oval.

0	1	2	3	4	5	6	7	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

28. 28. To what extent do you agree with this statement: Finishing what is on the agenda is more important than everyone feeling respected and satisfied with the process.

Mark only one oval.

0	1	2	3	4	5	6	7	
Task is more important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	People and their satisfaction is more important

29. 29. Do you have any comments about the survey? (was it easy to understand, wording of the questions ect.)

---



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**We appreciate your time and responses! Have a great day! :)**

You are more than welcome to contact us after if you wish to read the paper and how danish culture has influenced the strategy formulation within the MOs before and during PK.

Appendix 38: STATA Do file

```
//////////START BY IMPORTING OUR DATA SET (Excel sheet) //////////
```

```
drop P
drop AE
drop AF
```

```
//renaming variables
rename B nationality
rename C age
rename D gender
rename E confidontknow
rename F myvoicematters
rename G decisioninvolvement
rename H opinion
rename I femininity
rename J longterm
rename K shychange
rename L university
rename M position
rename N whatdoyoudo
rename O attendedpk
rename Q additionalinfo
rename R sufficientinfo
rename S qualquant
rename T personalimpersonal
rename U inductive
rename V consensus
rename W historicalprecedent
rename X bureaucracy
rename Y personaledict
rename Z politicalcoalition
rename AA futurepast
rename AB limitedtime
rename AC prefershort
rename AD socialvstask
```

```
////////////////////////////////////
```

```
///describing our sample
graph pie, over(university)
histogram age, discrete percent normal
histogram gender
tab gender
histogram attendedpk, discrete percent normal
```

```
////////// dropping missing values
drop if nationality==.
drop if age==.
drop if gender==.
```

drop if confidontknow==.  
 drop if myvoicematters==.  
 drop if decisioninvolvement==.  
 drop if opinion==.  
 drop if femininity==.  
 drop if longterm==.  
 drop if university==.  
 drop if attendedpk==.  
 drop if sufficientinfo==.  
 drop if qualquant==.  
 drop if personalimpersonal==.  
 drop if inductive==.  
 drop if consensus==.  
 drop if historicalprecedent==.  
 drop if futurepast==.  
 drop if limitedtime==.  
 drop if prefershort==.  
 drop if socialvstask==.  
 drop if shychange==.  
 drop if additionalinfo==.  
 drop if bureaucracy==.  
 drop if personaledict==.  
 drop if politicalcoalition==.

////////////////////////////////////

// examining means, minimum values, maximum values and standard deviations

tab confidontknow  
 sum confidontknow  
 tab myvoicematters  
 sum myvoicematters  
 tab decisioninvolvement  
 sum decisioninvolvement  
 tab opinion  
 sum opinion  
 tab femininity  
 sum femininity  
 tab longterm  
 sum longterm  
 tab sufficientinfo  
 sum sufficientinfo  
 tab qualquant  
 sum qualquant  
 tab personalimpersonal  
 sum personalimpersonal  
 tab inductive  
 sum inductive  
 tab consensus  
 sum consensus  
 tab historicalprecedent

```

sum historicalprecedent
tab futurepast
sum futurepast
tab limitedtime
sum limitedtime
tab prefershort
sum prefershort
tab socialvstask
sum socialvstask
tab shychange
sum shychange
tab additionalinfo
sum additionalinfo
tab bureaucracy
sum bureaucracy
tab personaledict
sum personaledict
tab politicalcoalition
sum politicalcoalition

```

```

////////////////////////////////////

```

```

//creating an index
//Uncertainty avoidance- variables shychange and confidontknow
pworth shychange confidontknow
alpha shychange confidontknow
alpha confidontknow shychange, item casewise
tab sufficientinfo shychange, gamma taub

```

```

// power distance- variables my voicematters and decisioninvolvement
pworth myvoicematters decisioninvolvement
alpha myvoicematters decisioninvolvement
alpha myvoicematters decisioninvolvement, item casewise

```

```

tab socialvstask femininity, exact
tab socialvstask femininity, chi2 column
tab socialvstask femininity, expected

```

```

//creating controlling index
//changing directions of relevant variables so they all go in the same direction
//politicalcoalition variable

```

```

tab politicalcoalition
generate politicalcoalitionc=.
replace politicalcoalitionc=0 if politicalcoalition==7
replace politicalcoalitionc=1 if politicalcoalition==6
replace politicalcoalitionc=2 if politicalcoalition==5
replace politicalcoalitionc=3 if politicalcoalition==4
replace politicalcoalitionc=4 if politicalcoalition==3

```

```

replace politicalcoalitionc=5 if politicalcoalition==2
replace politicalcoalitionc=6 if politicalcoalition==1
replace politicalcoalitionc=7 if politicalcoalition==0

```

```

// historical precedent
tab historicalprecedent
generate historicalprecedentc=.
replace historicalprecedentc=0 if historicalprecedent==7
replace historicalprecedentc=1 if historicalprecedent==6
replace historicalprecedentc=2 if historicalprecedent==5
replace historicalprecedentc=3 if historicalprecedent==4
replace historicalprecedentc=4 if historicalprecedent==3
replace historicalprecedentc=5 if historicalprecedent==2
replace historicalprecedentc=6 if historicalprecedent==1
replace historicalprecedentc=7 if historicalprecedent==0

```

```

//consensus
tab consensus
generate consensusc=.
replace consensusc=0 if consensus==7
replace consensusc=1 if consensus==6
replace consensusc=2 if consensus==5
replace consensusc=3 if consensus==4
replace consensusc=4 if consensus==3
replace consensusc=5 if consensus==2
replace consensusc=6 if consensus==1
replace consensusc=7 if consensus==0

```

```

//inductive
tab inductive
generate inductivec=.
replace inductivec=0 if inductive==7
replace inductivec=1 if inductive==6
replace inductivec=2 if inductive==5
replace inductivec=3 if inductive==4
replace inductivec=4 if inductive==3
replace inductivec=5 if inductive==2
replace inductivec=6 if inductive==1
replace inductivec=7 if inductive==0

```

```

// personal vs impersonal
tab personalimpersonal
generate personalimpersonalc=.
replace personalimpersonalc=0 if personalimpersonal==7
replace personalimpersonalc=1 if personalimpersonal==6
replace personalimpersonalc=2 if personalimpersonal==5
replace personalimpersonalc=3 if personalimpersonal==4
replace personalimpersonalc=4 if personalimpersonal==3

```

```

replace personalimpersonalc=5 if personalimpersonal==2
replace personalimpersonalc=6 if personalimpersonal==1
replace personalimpersonalc=7 if personalimpersonal==0

```

```

// qualitative vs quantitative
tab qualquant
generate qualquantc=.
replace qualquantc=0 if qualquant==7
replace qualquantc=1 if qualquant==6
replace qualquantc=2 if qualquant==5
replace qualquantc=3 if qualquant==4
replace qualquantc=4 if qualquant==3
replace qualquantc=5 if qualquant==2
replace qualquantc=6 if qualquant==1
replace qualquantc=7 if qualquant==0

```

```

// sufficient info (broad vs focused)
tab sufficientinfo
generate sufficientinfoc=.
replace sufficientinfoc=0 if sufficientinfo==7
replace sufficientinfoc=1 if sufficientinfo==6
replace sufficientinfoc=2 if sufficientinfo==5
replace sufficientinfoc=3 if sufficientinfo==4
replace sufficientinfoc=4 if sufficientinfo==3
replace sufficientinfoc=5 if sufficientinfo==2
replace sufficientinfoc=6 if sufficientinfo==1
replace sufficientinfoc=7 if sufficientinfo==0

```

```

// prefer short
tab prefershort
generate prefershortc=.
replace prefershortc=0 if prefershort==7
replace prefershortc=1 if prefershort==6
replace prefershortc=2 if prefershort==5
replace prefershortc=3 if prefershort==4
replace prefershortc=4 if prefershort==3
replace prefershortc=5 if prefershort==2
replace prefershortc=6 if prefershort==1
replace prefershortc=7 if prefershort==0

```

```

//correlation test
pwcrr additionalinfo sufficientinfoc qualquantc personalimpersonalc inductivec consensusc
historicalprecedentc bureaucracy personaedict politicalcoalitionc futurepast limitedtime prefershortc
socialvstask

```

```

//alpha test

```



```
alpha additionalinfo sufficientinfoc qualquanc personalimpersonalc inductivec consensusc
historicalprecedentc bureaucracy personaedict politicalcoalitionc futurepast limitedtime prefershortc
socialvstask,c
```

```
alpha additionalinfo sufficientinfoc qualquanc personalimpersonalc inductivec consensusc
historicalprecedentc bureaucracy personaedict politicalcoalitionc futurepast limitedtime prefershortc
socialvstask, item casewise
```

```
//reverse variables: POLITICALCOALITIONC FUTUREPAST, LIMITEDTIME, AND SOCIALTASK
TAKEN OUT
```

```
alpha additionalinfo sufficientinfoc qualquanc personalimpersonalc inductivec consensusc
historicalprecedentc bureaucracy prefershortc personaedict, c
```

```
alpha additionalinfo sufficientinfoc qualquanc personalimpersonalc inductivec consensusc
historicalprecedentc bureaucracy prefershortc personaedict, item casewise
```

```
//correlation test
```

```
pwcorr additionalinfo sufficientinfo qualquanc personalimpersonalc bureaucracy personaedict
inductive consensus historicalprecedentc prefershortc
```

```
//generating controlling index
```

```
gen
```

```
controlindex=(additionalinfo+sufficientinfo+qualquanc+personalimpersonalc+bureaucracy+personaed
ict+inductive+consensus+historicalprecedentc+prefershortc)
```

```
histogram controlindex
```

```
// rescaling the index to 0-100
```

```
gen controlindex100=((controlindex-16)/(46-16))*(100-0)+0
```

```
histogram controlindex100
```

```
histogram controlindex100, discrete percent normal
```

```
//generating adaptive index
```

```
//changing directions
```

```
//additionalinfo
```

```
tab additionalinfo
```

```
generate additionalinfoa=.
```

```
replace additionalinfoa=0 if additionalinfo==7
```

```
replace additionalinfoa=1 if additionalinfo==6
```

```
replace additionalinfoa=2 if additionalinfo==5
```

```
replace additionalinfoa=3 if additionalinfo==4
```

```
replace additionalinfoa=4 if additionalinfo==3
```

```
replace additionalinfoa=5 if additionalinfo==2
```

```
replace additionalinfoa=6 if additionalinfo==1
```

```
replace additionalinfoa=7 if additionalinfo==0
```

```
//bureaucracy
```

```
tab bureaucracy
```

```
generate bureaucracya=.
```

```
replace bureaucracya=0 if bureaucracy==7
```

```
replace bureaucracya=1 if bureaucracy==6
```

```

replace bureaucracy=2 if bureaucracy==5
replace bureaucracy=3 if bureaucracy==4
replace bureaucracy=4 if bureaucracy==3
replace bureaucracy=5 if bureaucracy==2
replace bureaucracy=6 if bureaucracy==1
replace bureaucracy=7 if bureaucracy==0

```

```

//personal edict
tab personaledict
generate personaledicta=.
replace personaledicta=0 if personaledict==7
replace personaledicta=1 if personaledict==6
replace personaledicta=2 if personaledict==5
replace personaledicta=3 if personaledict==4
replace personaledicta=4 if personaledict==3
replace personaledicta=5 if personaledict==2
replace personaledicta=6 if personaledict==1
replace personaledicta=7 if personaledict==0

```

```

//future past
tab futurepast
generate futurepasta=.
replace futurepasta=0 if futurepast==7
replace futurepasta=1 if futurepast==6
replace futurepasta=2 if futurepast==5
replace futurepasta=3 if futurepast==4
replace futurepasta=4 if futurepast==3
replace futurepasta=5 if futurepast==2
replace futurepasta=6 if futurepast==1
replace futurepasta=7 if futurepast==0

```

```

//limitedtime
tab limitedtime
generate limitedtimea=.
replace limitedtimea=0 if limitedtime==7
replace limitedtimea=1 if limitedtime==6
replace limitedtimea=2 if limitedtime==5
replace limitedtimea=3 if limitedtime==4
replace limitedtimea=4 if limitedtime==3
replace limitedtimea=5 if limitedtime==2
replace limitedtimea=6 if limitedtime==1
replace limitedtimea=7 if limitedtime==0

```

```

//task vs social
tab socialvstask
generate socialvstaska=.
replace socialvstaska=0 if socialvstask==7
replace socialvstaska=1 if socialvstask==6

```

```

replace socialvstaska=2 if socialvstask==5
replace socialvstaska=3 if socialvstask==4
replace socialvstaska=4 if socialvstask==3
replace socialvstaska=5 if socialvstask==2
replace socialvstaska=6 if socialvstask==1
replace socialvstaska=7 if socialvstask==0

```

```

pworth socialvstaska limitedtimea futurepasta personaledicta bureaucracy additionalinfo
politicalcoalition historicalprecedent consensus inductive personalimpersonal qualquant sufficientinfo
prefershort
alpha socialvstaska limitedtimea futurepasta personaledicta bureaucracy additionalinfo
politicalcoalition historicalprecedent consensus inductive personalimpersonal qualquant sufficientinfo
prefershort, c
alpha socialvstaska limitedtimea futurepasta personaledicta bureaucracy additionalinfo
politicalcoalition historicalprecedent consensus inductive personalimpersonal qualquant sufficientinfo
prefershort, item casewise

```

```

// reverse variables are socialvstaska, limitedtimea, futurepasta and politicalcoalition
// reverse variables taken out
pworth personaledicta bureaucracy additionalinfo historicalprecedent consensus inductive
personalimpersonal qualquant sufficientinfo prefershort
alpha personaledicta bureaucracy additionalinfo historicalprecedent consensus inductive
personalimpersonal qualquant sufficientinfo prefershort, c
alpha personaledicta bureaucracy additionalinfo historicalprecedent consensus inductive
personalimpersonal qualquant sufficientinfo prefershort, item casewise

```

```

//creating adapting index
gen adaptindex=
(personaledicta+bureaucracya+additionalinfo+historicalprecedent+consensus+inductive+personalim
personal+qualquant+sufficientinfo+prefershort)
histogram adaptindex
histogram adaptindex, discrete percent normal

```

```

//rescaling the adaptindex (70 max)
gen adaptindex100=((adaptindex-21)/(70-21))*(100-0)+0
histogram adaptindex100
histogram adaptindex100, discrete percent normal

```

```

////////////////////
////////////////////CULTURE////////////////////
////////////////////
//generating index for powerdistance
//correlation test
pworth myvoicematters decisioninvolvement

```

```

//alpha test
alpha myvoicematters decisioninvolvement, c
alpha myvoicematters decisioninvolvement, item casewise

```

```

//generating the index
gen powerdistance=(myvoicematters+decisioninvolvement)

//rescaling it to 0 to 7 to be able to test it with the other cultural variables//
gen powerdistance07=((powerdistance-4)/(14-4))*(7-0)+0

// changing the direction of shychange variable
tab shychange
generate shychange2=.
replace shychange2=0 if shychange==7
replace shychange2=1 if shychange==6
replace shychange2=2 if shychange==5
replace shychange2=3 if shychange==4
replace shychange2=4 if shychange==3
replace shychange2=5 if shychange==2
replace shychange2=6 if shychange==1
replace shychange2=7 if shychange==0

// DANISH CULTURE INDEX
//variables powerdistance shychange2 longterm opinion femininity
//correlation test
pwcorr myvoicematters decisioninvolvement shychange2 confidontknow longterm opinion femininity
//alpha test
alpha myvoicematters decisioninvolvement shychange2 confidontknow longterm opinion femininity, c
alpha myvoicematters decisioninvolvement shychange2 confidontknow longterm opinion femininity,
item casewise
//index creation
gen
danishculture=(decisioninvolvement+myvoicematters+shychange2+confidontknow+longterm+opinion+
femininity)
histogram danishculture

//rescaling the index to 0 to 100
gen danishculture100=((danishculture-25)/(49-25))*(100-0)+0
histogram danishculture100

//////////creating culture personas from the index//////////
gen dcpersona=.
replace dcpersona=4 if danishculture100<=100 & danishculture100>=75
replace dcpersona=3 if danishculture100>=50 & danishculture100<=75
replace dcpersona=2 if danishculture100>=25 & danishculture100<=50
replace dcpersona=1 if danishculture100>=0 & danishculture100<=25
tab dcpersona, gen(dcpersona)

//////////creating 4 personas for each of the 5 cultural dimensions
//femininity
gen fempersonas=.

```

```

replace fempersonas=4 if femininity<=7 & femininity>=5.25
replace fempersonas=3 if femininity>=3.5 & femininity<=5.25
replace fempersonas=2 if femininity>=1.75 & femininity<=3.5
replace fempersonas=1 if femininity>=0 & femininity<=1.75
tab fempersonas, gen(fempersonas)

```

```

//uncertainty avoidance
gen uapersonas=.
replace uapersonas=4 if shychange2<=7 & shychange2>=5.25
replace uapersonas=3 if shychange2>=3.5 & shychange2<=5.25
replace uapersonas=2 if shychange2>=1.75 & shychange2<=3.5
replace uapersonas=1 if shychange2>=0 & shychange2<=1.75
tab uapersonas, gen(uapersonas)

```

```

// individualism
gen indpersonas=.
replace indpersonas=4 if opinion<=7 & opinion>=5.25
replace indpersonas=3 if opinion>=3.5 & opinion<=5.25
replace indpersonas=2 if opinion>=1.75 & opinion<=3.5
replace indpersonas=1 if opinion>=0 & opinion<=1.75
tab indpersonas, gen(indpersonas)

```

```

// long term
gen longpersonas=.
replace longpersonas=4 if longterm<=7 & longterm>=5.25
replace longpersonas=3 if longterm>=3.5 & longterm<=5.25
replace longpersonas=2 if longterm>=1.75 & longterm<=3.5
replace longpersonas=1 if longterm>=0 & longterm<=1.75
tab longpersonas, gen(longpersonas)

```

```

//power distance
gen pdpersonas=.
replace pdpersonas=4 if powerdistance07<=7 & powerdistance07>=5.25
replace pdpersonas=3 if powerdistance07>=3.5 & powerdistance07<=5.25
replace pdpersonas=2 if powerdistance07>=1.75 & powerdistance07<=3.5
replace pdpersonas=1 if powerdistance07>=0 & powerdistance07<=1.75
tab pdpersonas, gen(pdpersonas)

```

```

////////////////////////////////////
// regressions where the dependent variables are controlindex100 and adaptindex100
//and the independent variable is danishculture
reg adaptindex100 danishculture100
pwcorr danishculture100 adaptindex100, sig star(.05) obs
tway (scatter adaptindex100 danishculture100) (lfit adaptindex100 danishculture100)

```

```

reg controlindex100 danishculture100
pwcorr danishculture100 controlindex100, sig star(.05) obs
tway (scatter controlindex100 danishculture100) (lfit controlindex100 danishculture100)

```

//tho both are insignificant it is clear that there is much stronger relationship between danishculture and adapting index rather than danish culture and controlling index

///// ASSUMPTIONS TESTING OF BIVARIATE REGRESSION - ADAPTING VS DANISH CULTURE

//LINEARITY

```
reg adaptindex100 danishculture100
avplots
```

```
reg adaptindex100 danishculture100
acprplot danishculture100, lowess
```

//NORMALLY DISTRIBUTED RESIDUALS

```
reg adaptindex100 danishculture100
predict res, residuals
histogram res, normal
drop res
```

// NO INFLUENTIAL OUTLIERS

```
reg adaptindex100 danishculture100
```

```
//leverage-vs-residual-squared plot
lvr2plot
```

//Cook's D

```
predict cooksD, cooksD
display 4/e(N)
summarize cooksD if cooksD>(4/e(N))
browse if cooksD>(4/e(N)) & cooksD<.
```

//dfbeta

```
dfbeta
sum _dfbeta_1 if abs(_dfbeta_1)>2/sqrt(e(N))
browse if abs(_dfbeta_1)>2/sqrt(e(N)) & _dfbeta_1<.
gen outliers=0 if cooksD<.
replace outliers=1 if cooksD>=(4/e(N)) & cooksD<=.
tab outliers
```

```
reg adaptindex100 danishculture100
reg adaptindex100 danishculture100 if outliers==0
```

//homoscedasticity

//null-hypothesis: no heteroscedasticity --> constant variable

//alternative hypothesis: heteroscedasticity --> no constant variable

```
rvfplot, yline(0)
```

```
reg adaptindex100 danishculture100
reg adaptindex100 danishculture100, robust
```

////////////////////////////////////

//testing correlation of cultural dimension with its relative strategy formulation dimensions within the 5 steps of strategy formulation

//SCANNING

pwcorr uapersonas sufficientinfo additionalinfo, sig star(.05) obs  
 pwcorr shychange2 sufficientinfo additionalinfo, sig star(.05) obs  
 pwcorr confidontknow sufficientinfo additionalinfo, sig star(.05) obs

//SELECTING

pwcorr uapersonas qualquant, sig star(.05) obs  
 pwcorr pdpersonas qualquant, sig star(.05) obs  
 pwcorr pdpersonas personalimpersonal, sig star(.05) obs  
 pwcorr indpersonas personalimpersonal, sig star(.05) obs

pwcorr shychange2 qualquant, sig star(.05) obs  
 pwcorr confidontknow qualquant, sig star(.05) obs  
 pwcorr myvoicematters qualquant, sig star(.05) obs  
 pwcorr decisioninvolvement qualquant, sig star(.05) obs  
 pwcorr myvoicematters personalimpersonal, sig star(.05) obs  
 pwcorr decisioninvolvement personalimpersonal, sig star(.05) obs  
 pwcorr opinion personalimpersonal, sig star(.05) obs

//INTERPRETING

//significant

pwcorr uapersonas inductive, sig star(.05) obs  
 pwcorr longpersonas inductive, sig star(.05) obs

//significant

pwcorr shychange2 inductive, sig star(.05) obs  
 pwcorr confidontknow inductive, sig star(.05) obs  
 pwcorr longterm inductive, sig star(.05) obs

//VALIDATION

//consensus

pwcorr pdpersonas consensus, sig star(.05) obs  
 pwcorr fempersonas consensus, sig star(.05) obs

//significant

pwcorr longpersonas consensus, sig star(.05) obs

pwcorr decisioninvolvement consensus, sig star(.05) obs  
 pwcorr myvoicematters consensus, sig star(.05) obs  
 pwcorr femininity consensus, sig star(.05) obs

//significant

pwcorr longterm consensus, sig star(.05) obs

//personal edict

pwcorr pdpersonas personaledict, sig star(.05) obs  
 pwcorr fempersonas personaledict, sig star(.05) obs  
 pwcorr longpersonas personaledict, sig star(.05) obs

pwcorr myvoicematters personaledict, sig star(.05) obs  
 pwcorr decisioninvolvement personaledict, sig star(.05) obs  
 pwcorr femininity personaledict, sig star(.05) obs  
 pwcorr longterm personaledict, sig star(.05) obs

reg controlindex100 personaledict

//historical precedent

pwcorr pdpersonas historicalprecedent, sig star(.05) obs  
 pwcorr fempersonas historicalprecedent, sig star(.05) obs  
 //significant  
 pwcorr longpersonas historicalprecedent, sig star(.05) obs

pwcorr myvoicematters historicalprecedent, sig star(.05) obs  
 pwcorr decisioninvolvement historicalprecedent, sig star(.05) obs  
 pwcorr femininity historicalprecedent, sig star(.05) obs  
 //significant  
 pwcorr longterm historicalprecedent, sig star(.05) obs

//political coalition

pwcorr pdpersonas politicalcoalition, sig star(.05) obs  
 pwcorr fempersonas politicalcoalition, sig star(.05) obs  
 pwcorr longpersonas politicalcoalition, sig star(.05) obs

pwcorr myvoicematters politicalcoalition, sig star(.05) obs  
 //significant  
 pwcorr decisioninvolvement politicalcoalition, sig star(.05) obs  
 pwcorr femininity politicalcoalition, sig star(.05) obs  
 pwcorr longterm politicalcoalition, sig star(.05) obs

//bureaucracy

pwcorr pdpersonas bureaucracy, sig star(.05) obs  
 pwcorr fempersonas bureaucracy, sig star(.05) obs  
 pwcorr longpersonas bureaucracy, sig star(.05) obs

pwcorr myvoicematters bureaucracy, sig star(.05) obs  
 pwcorr decisioninvolvement bureaucracy, sig star(.05) obs  
 pwcorr femininity bureaucracy, sig star(.05) obs  
 pwcorr longterm bureaucracy, sig star(.05) obs

reg controlindex100 bureaucracy

//ESTABLISHING PRIORITIES



```

//urgency
//uapersonas futurepast significant
pwcrr uapersonas futurepast limitedtime, sig star(.05) obs
pwcrr longpersonas futurepast limitedtime, sig star(.05) obs

//shychange2 futurepast significant
pwcrr shychange2 futurepast limitedtime, sig star(.05) obs
pwcrr confidontknow futurepast limitedtime, sig star(.05) obs
pwcrr longterm futurepast limitedtime, sig star(.05) obs

//certainty
pwcrr uapersonas prefershort, sig star(.05) obs

pwcrr shychange2 prefershort, sig star(.05) obs
pwcrr confidontknow prefershort, sig star(.05) obs

//importance
pwcrr fempersonas socialvstask, sig star(.05) obs

pwcrr femininity socialvstask, sig star(.05) obs

////////////////////////////////////
//creating dummy variables for strategy formulation so we can do chi2 tests
gen additionalinfod_dum=0
replace additionalinfod=1 if additionalinfo>=3.5

gen sufficientinfod_dum=0
replace sufficientinfod=1 if sufficientinfo>=3.5

gen qualquantd_dum=0
replace qualquantd=1 if qualquant>=3.5

gen personalimpersonald_dum=0
replace personalimpersonald=1 if personalimpersonal>=3.5

gen inductived_dum=0
replace inductived=1 if inductive>=3.5

gen consensusd_dum=0
replace consensusd=1 if consensus>=3.5

gen historicalprecedentd_dum=0
replace historicalprecedentd=1 if historicalprecedent>=3.5

gen bureaucracyd_dum=0
replace bureaucracyd=1 if bureaucracy>=3.5

```

```

gen personaedictd_dum=0
replace personaedictd=1 if personaedict>=3.5

gen politicalcoalitiond_dum=0
replace politicalcoalitiond=1 if politicalcoalition>=3.5

gen futurepastd_dum=0
replace futurepastd=1 if futurepast>=3.5

gen limitedtimed_dum=0
replace limitedtimed=1 if limitedtime>=3.5

gen prefershortd_dum=0
replace prefershortd=1 if prefershort>=3.5

gen socialvstaskd_dum=0
replace socialvstaskd=1 if socialvstask>=3.5
////////////////////////////////////
//CHI2 TESTS
//SCANNING
tabulate uapersonas sufficientinfod , chi2
tabulate uapersonas additionalinfod, chi2

tabulate shychange2 additionalinfod, chi2
tabulate shychange2 sufficientinfod, chi2

tabulate confidontknow additionalinfod, chi2
tabulate confidontknow sufficientinfod , chi2

//SELECTING
tabulate uapersonas qualquantd, chi2
tabulate pdpersonas qualquantd, chi2
tabulate pdpersonas personalimpersonald, chi2
tabulate indpersonas personalimpersonald, chi2

tabulate shychange2 qualquantd, chi2
tabulate confidontknow qualquantd, chi2
tabulate myvoicematters qualquantd, chi2
tabulate decisioninvolvement qualquantd, chi2
tabulate myvoicematters personalimpersonald, chi2
tabulate decisioninvolvement personalimpersonald, chi2
tabulate opinion personalimpersonald, chi2

//INTERPRETING
tabulate uapersonas inductived, chi2
tabulate longpersonas inductived, chi2

```

tabulate shychange2 inductived, chi2  
 tabulate confidontknow inductived, chi2  
 tabulate longterm inductived, chi2

//VALIDATION

//consensus

tabulate pdpersonas consensusd, chi2  
 tabulate fempersonas consensusd, chi2  
 tabulate longpersonas consensusd, chi2

tabulate decisioninvolvement consensusd, chi2  
 tabulate myvoicematters consensusd, chi2  
 tabulate femininity consensusd, chi2  
 tabulate longterm consensusd, chi2

//personal edict

tabulate pdpersonas personaedictd, chi2  
 tabulate fempersonas personaedictd, chi2  
 tabulate longpersonas personaedictd, chi2

tabulate myvoicematters personaedictd, chi2  
 tabulate decisioninvolvement personaedictd, chi2  
 tabulate femininity personaedictd, chi2  
 tabulate longterm personaedictd, chi2

//historical precedent

tabulate pdpersonas historicalprecedentd, chi2  
 tabulate fempersonas historicalprecedentd, chi2  
 tabulate longpersonas historicalprecedentd, chi2

tabulate myvoicematters historicalprecedentd, chi2  
 tabulate decisioninvolvement historicalprecedentd, chi2  
 tabulate femininity historicalprecedentd, chi2  
 tabulate longterm historicalprecedentd, chi2

//political coalition

tabulate pdpersonas politicalcoalitiond, chi2  
 tabulate fempersonas politicalcoalitiond, chi2  
 tabulate longpersonas politicalcoalitiond, chi2

tabulate myvoicematters politicalcoalitiond, chi2  
 tabulate decisioninvolvement politicalcoalitiond, chi2  
 tabulate femininity politicalcoalitiond, chi2  
 tabulate longterm politicalcoalitiond, chi2

//bureaucracy

tabulate pdpersonas bureaucracyd, chi2  
 tabulate fempersonas bureaucracyd, chi2

tabulate longpersonas bureaucracyd, chi2

tabulate myvoicematters bureaucracyd, chi2  
 tabulate decisioninvolvement bureaucracyd, chi2  
 tabulate femininity bureaucracyd, chi2  
 tabulate longterm bureaucracyd, chi2

//ESTABLISHING PRIORITIES

//urgency

tabulate uapersonas limitedtimed, chi2  
 tabulate uapersonas futurepast, chi2

tabulate longpersonas futurepastd , chi2  
 tabulate longpersonas limitedtimed, chi2

tabulate shychange2 futurepastd, chi2  
 tabulate shychange2 limitedtimed, chi2

tabulate confidontknow futurepastd, chi2  
 tabulate confidontknow limitedtimed, chi2

tabulate longterm futurepastd, chi2  
 tabulate longterm limitedtimed, chi2

//certainty

tabulate uapersonas prefershortd, chi2

tabulate shychange2 prefershortd, chi2  
 tabulate confidontknow prefershortd, chi2

//importance

tabulate fempersonas socialvstaskd, chi2  
 tabulate femininity socialvstaskd, chi2

////////////////////////////////////

//Fishers exact test

//SCANNING

tabulate uapersonas sufficientinfod , exact  
 tabulate uapersonas additionalinfod, exact

tabulate shychange2 additionalinfod, exact  
 tabulate shychange2 sufficientinfod, exact

tabulate confidontknow additionalinfod, exact  
 tabulate confidontknow sufficientinfod , exact

## //SELECTING

tabulate uapersonas qualquantd, exact  
 tabulate pdpersonas qualquantd, exact  
 tabulate pdpersonas personalimpersonald, exact  
 tabulate indpersonas personalimpersonald, exact

tabulate shychange2 qualquantd, exact  
 tabulate confidontknow qualquantd, exact  
 tabulate myvoicematters qualquantd, exact  
 tabulate decisioninvolvement qualquantd, exact  
 tabulate myvoicematters personalimpersonald, exact  
 tabulate decisioninvolvement personalimpersonald, exact  
 tabulate opinion personalimpersonald, exact

## //INTERPRETING

tabulate uapersonas inductived, exact  
 tabulate longpersonas inductived, exact

tabulate shychange2 inductived, exact  
 tabulate confidontknow inductived, exact  
 tabulate longterm inductived, exact

## //VALIDATION

## //consensus

tabulate pdpersonas consensusd, exact  
 tabulate fempersonas consensusd, exact  
 tabulate longpersonas consensusd, exact  
 tabulate indpersonas consensusd, exact  
 tabulate uapersonas consensusd, exact  
 tabulate shychange2 consensusd, exact  
 tabulate confidontknow consensusd, exact  
 tabulate opinion consensusd, exact

tabulate decisioninvolvement consensusd, exact  
 tabulate myvoicematters consensusd, exact  
 tabulate femininity consensusd, exact  
 tabulate longterm consensusd, exact

## //personal edict

tabulate pdpersonas personaledictd, exact  
 tabulate fempersonas personaledictd, exact  
 tabulate longpersonas personaledictd, exact  
 tabulate indpersonas personaledictd, exact  
 tabulate uapersonas personaledictd, exact  
 tabulate shychange2 personaledictd, exact  
 tabulate confidontknow personaledictd, exact  
 tabulate opinion personaledictd, exact

tabulate myvoicematters personaledictd, exact  
 tabulate decisioninvolvement personaledictd, exact  
 tabulate femininity personaledictd, exact  
 tabulate longterm personaledictd, exact

//historical precedent

tabulate pdpersonas historicalprecedentd, exact  
 tabulate fempersonas historicalprecedentd, exact  
 tabulate longpersonas historicalprecedentd, exact  
 tabulate indpersonas historicalprecedentd, exact  
 tabulate uapersonas historicalprecedentd, exact  
 tabulate shychange2 historicalprecedentd, exact  
 tabulate confidontknow historicalprecedentd, exact  
 tabulate opinion historicalprecedentd, exact

tabulate myvoicematters historicalprecedentd, exact  
 tabulate decisioninvolvement historicalprecedentd, exact  
 tabulate femininity historicalprecedentd, exact  
 tabulate longterm historicalprecedentd, exact

//political coalition

tabulate pdpersonas politicalcoalitiond, exact  
 tabulate fempersonas politicalcoalitiond, exact  
 tabulate longpersonas politicalcoalitiond, exact  
 tabulate indpersonas politicalcoalitiond, exact  
 tabulate uapersonas politicalcoalitiond, exact  
 tabulate shychange2 politicalcoalitiond, exact  
 tabulate confidontknow politicalcoalitiond, exact  
 tabulate opinion politicalcoalitiond, exact

tabulate myvoicematters politicalcoalitiond, exact  
 tabulate decisioninvolvement politicalcoalitiond, exact  
 tabulate femininity politicalcoalitiond, exact  
 tabulate longterm politicalcoalitiond, exact

//bureaucracy

tabulate pdpersonas bureaucracyd, exact  
 tabulate fempersonas bureaucracyd, exact  
 tabulate longpersonas bureaucracyd, exact  
 tabulate indpersonas bureaucracyd, exact  
 tabulate uapersonas bureaucracyd, exact  
 tabulate shychange2 bureaucracyd, exact  
 tabulate confidontknow bureaucracyd, exact  
 tabulate opinion bureaucracyd, exact

tabulate myvoicematters bureaucracyd, exact  
 tabulate decisioninvolvement bureaucracyd, exact

tabulate femininity bureaucracyd, exact  
 tabulate longterm bureaucracyd, exact

//

//testing the control variables

//SCANNING

scatter sufficientinfo age  
 tabulate university sufficientinfod, exact  
 tabulate gender sufficientinfod, exact  
 scatter sufficientinfo attendedpk

scatter additionalinfo age  
 tabulate university additionalinfod, exact  
 tabulate gender additionalinfod, exact  
 scatter additionalinfo attendedpk

//SELECTING

scatter qualquant age  
 tabulate university qualquantd, exact  
 tabulate gender qualquantd, exact  
 scatter qualquant attendedpk

scatter personalimpersonal age  
 tabulate university personalimpersonald, exact  
 tabulate gender personalimpersonald, exact  
 scatter personalimpersonal attendedpk

//INTERPRETING

scatter inductive age  
 tabulate university inductived, exact  
 tabulate gender inductived, exact  
 scatter inductive attendedpk

//VALIDATION

//consensus

scatter consensus age  
 tabulate university consensusd, exact  
 tabulate gender consensusd, exact  
 scatter consensus attendedpk

//personal edict

scatter personaledict age  
 tabulate gender personaledictd, exact  
 tabulate attendedpk personaledictd, exact  
 scatter personaledict university

//historical precedent

scatter historicalprecedent age  
 tabulate university historicalprecedentd, exact

tabulate gender historicalprecedentd, exact  
 scatter historicalprecedent attendedpk

//political coalition  
 scatter politicalcoalition age  
 tabulate university politicalcoalitiond, exact  
 tabulate gender politicalcoalitiond, exact  
 scatter politicalcoalition attendedpk

//bureaucracy  
 scatter bureaucracy age  
 tabulate university bureaucracyd, exact  
 tabulate gender bureaucracyd, exact  
 scatter bureaucracy attendedpk

//ESTABLISHING PRIORITIES

//urgency  
 scatter futurepast age  
 tabulate university futurepastd, exact  
 tabulate gender futurepastd, exact  
 scatter futurepast attendedpk

scatter age limitedtime  
 tabulate university limitedtimed, exact  
 tabulate gender limitedtimed, exact  
 scatter limitedtime attendedpk

//certainty  
 scatter prefershort age  
 tabulate university prefershortd, exact  
 tabulate gender prefershortd, exact  
 scatter prefershort attendedpk

//importance  
 scatter socialvstask age  
 tabulate university socialvstaskd, exact  
 tabulate gender socialvstaskd, exact  
 scatter socialvstask attendedpk

////////////////////////////////DISCUSSION////////////////////////////////

tabulate additionalinfo  
 tabulate personaedict  
 tabulate consensus  
 tabulate limitedtime  
 tabulate socialvstask  
 tabulate uapersonas whatdoyoudo



	A	B	C	D	E	F	G	H	I	J	K	L	M
1		1	24	1	6	2	4	5	6	4	2	5	Volunteer (part of an Mi
2		1	22	0	5	2	6	1	7	3	2	5	Volunteer (part of an Mi
3		1	24	1	5	7	7	4	5	2	2	5	Volunteer (part of an Mi
4		1	23	0	3	3	4	3	6	2	0	1	Volunteer (part of an Mi
5		1	23	0	5	4	4	5	6	6	2	1	Volunteer (part of an Mi
6		1	26	0	6	0	4	5	7	1	2	3	Other type of volunteer
7		1	25	1	5	6	6	3	5	4	3	3	Volunteer (part of an Mi
8		1	25	0	5	1	6	1	6	2	1	1	Volunteer (part of an Mi
9		1	24	1	5	1	5	4	3	2	2	4	Volunteer (part of an Mi
10		1	29	1	7	6	5	4	6	5	2	5	Volunteer (part of an Mi
11		1	21	1	2	6	5	2	6	4	5	4	Volunteer (part of an Mi
12		1	24	0	2	6	5	3	1	3	1	5	Volunteer (part of an Mi
13		1	26	1	7	6	5	6	3	1	5	5	Volunteer (part of an Mi
14		1	27	0	6	7	5	2	6	5	0	1	Volunteer (part of an Mi
15		1	23	1	6	7	7	0	5	3	5	2	Volunteer (part of an Mi
16		1	23	1	5	5	4	5	5	2	1	5	Volunteer (part of an Mi
17		1	25	1	6	6	6	7	6	7	1	2	Volunteer (part of an Mi
18		1	22	0	6	7	6	4	6	4	2	7	Volunteer (part of an Mi
19		1	24	1	5	7	7	2	4	4	0	1	Paid member of DSF
20		1	22	1	7	7	7	7	7	7	0	4	Volunteer (part of an Mi
21		1	24	0	7	6	6	0	3	1	2	3	Volunteer (part of an Mi
22		1	25	1	5	6	5	1	6	4	1	4	Volunteer (part of an Mi
23		1	28	0	7	7	6	4	4	0	0	5	Volunteer (part of an Mi
24		1	25	1	6	5	5	4	2	5	3	3	Volunteer (part of an Mi
25		1	22	1	6	6	6	7	5	0	1	5	Volunteer (part of an Mi
26		1	21	0	7	7	6	0	4	3	1	4	Volunteer (part of an Mi
27		1	26	1	7	7	7	7	7	7	0	5	Volunteer (part of an Mi
28		1	24	1	5	6	6	4	2	3	2	5	Volunteer (part of an Mi
29		1	21	1	5	5	4	4	2	3	3	1	Volunteer (part of an Mi
30		1	23	0	6	5	7	0	6	0	0	1	Volunteer (part of an Mi
31		1	25	0	1	3	7	3	7	1	1	3	Volunteer (part of an Mi
32		1	24	0	7	7	4	4	5	3	5	1	Volunteer (part of an Mi
33		1	23	1	7	7	5	4	7	3	0	1	Volunteer (part of an Mi
34		1	22	0	6	5	6	5	5	4	3	5	Volunteer (part of an Mi
35		1	23	1	6	6	4	6	4	2	1	6	Volunteer (part of an Mi
36		1	22	1	6	3	6	3	5	5	2	2	Paid member of DSF
37		1	21	0	4	7	5	4	6	3	2	2	Volunteer (part of an Mi
38		1	24	0	7	7	7	7	7	7	0	1	Volunteer (part of an Mi
39		1	25	0	2	6	5	3	6	3	1	1	Volunteer (part of an Mi
40		1	23	1	4	6	6	0	4	6	6	5	Volunteer (part of an Mi

N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
0	3	2	1	4	3	4	3	1	4	4	4	7	5	5	5	2
0	1	2	0	3	3	3	2	2	2	3	1	2	3	7	7	4
1	4	7	4	5	3	5	3	0	0	0	4	1	4	6	0	2
0	1	3	4	2	3	3	6	5	5	6	4	4	4	6	3	2
0	3	4	0	5	6	7	5	7	2	2	4	4	6	4	4	7
0	9	0	7	2	3	2	3	0	5	7	5	6	3	7	4	5
0	8	6	3	4	5	4	4	5	6	1	1	3	3	7	3	6
0	11	1	5	2	2	4	6	2	6	6	2	2	5	7	5	6
1	5	1	3	7	4	2	2	5	5	5	5	6	2	7	6	6
1	1	6	4	1	3	4	3	4	5	2	1	5	5	7	5	2
1	3	6	6	5	5	5	6	5	6	4	2	2	6	7	4	3
0	4	6	4	5	5	6	1	2	5	3	4	5	5	7	4	2
0	8	6	6	5	4	3	3	5	4	2	5	6	3	6	4	2
0	6	7	2	1	0	2	6	2	4	4	6	6	7	5	1	6
0	3	7	1	2	1	4	0	4	3	5	0	4	5	2	0	3
0	1	5	0	5	1	3	5	4	2	3	2	3	5	6	1	2
0	3	6	1	6	7	6	6	7	7	1	1	0	7	6	7	7
0	3	7	1	6	0	2	6	5	4	1	4	1	5	7	5	6
1	4	7	2	5	2	5	5	6	4	2	5	4	5	5	4	1
0	2	7	0	7	6	7	1	6	6	1	0	1	7	6	7	7
0	1	7	0	5	3	1	6	5	5	0	0	0	5	5	3	6
0	4	7	0	7	7	7	7	7	7	0	0	0	7	7	7	7
0	2	6	5	6	2	5	1	6	2	5	1	5	5	6	2	5
0	5	5	4	4	2	2	6	6	2	1	5	6	3	6	2	5
0	3	5	6	2	7	3	7	6	4	1	0	2	5	5	4	7
0	2	3	6	2	6	5	6	6	4	2	3	5	6	5	4	5
0	3	7	0	5	3	5	1	1	2	5	0	6	6	7	5	1
0	1	7	5	6	3	6	6	5	5	1	0	5	6	6	6	6
0	2	5	2	1	3	4	1	4	2	5	5	4	5	7	4	3
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0	1	3	2	5	2	3	6	5	5	5	1	4	3	7	5	1
0	1	3	2	5	2	3	6	5	5	5	1	4	3	7	5	1
0	3	7	3	5	0	0	7	0	3	5	0	7	4	4	7	0
0	3	7	3	5	0	0	7	7	3	5	0	7	4	5	7	0
0	3	7	0	7	7	7	7	7	7	0	0	0	7	7	7	7
0	3	5	4	5	3	3	5	4	4	5	2	3	4	4	3	3
0	5	0	3	1	3	7	3	2	6	0	6	4	3	7	3	0