Environmental sustainability in an unsustainable world:

Why do environmentally responsible individuals work in environmentally unsustainable industries?

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Abstract

In this research I am looking into the formation, implementation of actions and habits, completed environmentally conscious people, working in the most polluting industries. With the findings of this research, I wish to create a basis for further research of the sociological and psychological factors, influencing pro-environmental behaviour. The research question that I wished to uncover was: How does the professional identity of people working in large corporations relate to their personal sustainability ideals? To answer the research question, I first examine the developments of environmental sustainability ideals in society, particularly to the changing attitude of the last decade. Second, I analyse the psychological and sociological concepts that may influence the formation of pro-environmental behaviour. Finally, 10 semi-structured interviews were conducted with environmentally sustainable individuals working in highly polluting industries. The study revealed that because of their exposure, companies, operating in unsustainable fields have created very extensive environmental sustainability for their employees. Significant differences in cultural mentality were observed between companies, operating in Europe and other regions. The main factors, influencing pro-environmental behaviour were established as: personal social circles; consumed information channels, and policy in the country of residence. Economic reasons were the most common to restrict successful execution of pro-environmental behaviour.

Keywords: pro-environmental behaviour, sustainability, company culture, industry, conscious consumption

Table of Contents

Abstract	1
Table of Contents	2
Introduction	2
Theoretical overview	е
Historical overview of sustainability research	е
Environmental sustainability policy	7
The actors of environmental sustainability	8
Pro-environmental behaviour on a policy level	9
Pro-environmental behaviour at the company level	11
Pro-environmental behaviour at the individual level	13
Psychological and sociological analysis of environmental behaviour formation	15
Methodology	20
Sampling	20
Method	23
Interview process	23
Analysis	25
Research question	26
Key term operationalisation:	27
Results	28
Personal environmental action	28
Company behavior	30
Factors, influencing PEB among the workers	34
Social influence	34
Influence of the country	36
Reasons behind environmentally unsustainable behaviour	39
Importance of policy	41
Conclusion	43
So why do environmentally conscious people choose to work in unsustainable industries?	43
Factors, which influenced pro-environmental behaviour formation	44

Limitations and recommendations for further research	45
Appendix no. 1	47
Interview guide	47
Appendix no. 2	49
Table of respondents	49
References	50

Introduction

According to the IPCC (Intergovernmental panel on climate change) Fifth Assessment Report, the average global temperature has risen by 1.6 degrees since the late 19th century, with most of this change happening in the last 30 years. The last 5 years were the hottest in observation history and the effects of climate change are easier to observe and the Paris agreement seemed to signify a change in public perception of climate change. The same 5 years have proven to be interesting for the perception of climate change in several ways. On the one hand societies around the world experienced the adverse effects of climate unsustainability first-hand. Important legislation has been passed to diminish peoples' influence on the environment, most notably the Paris Climate Agreement in 2016. On the other hand, the inability to transition the legislation into meaningful action, both on a national and personal level has meant that the rising energy demands of the developing world have attributed to a global yearly CO2 emission rise of 1.7 % in 2018, the highest since 2013.

Understanding the dangers of climate change and concrete pro-environmental behaviours (PEB) do not always correlate. A 2019 public opinion study by the news agency *Reuters* study revealed that while 69% of Americans would agree for the government to take "aggressive" action towards combating climate change, only 30% would agree to pay an additional \$100 tax yearly for this cause. This dissonance between the outspoken values and the actions of the society is one of the main study objects in this thesis. This phenomenon was partially researched as the growing climate change scepticism movement in industrialized nations by Engels et. al. in 2013. The inactivity was attributed to diminishing political action.

Environmental behaviour research is one of the paramount research subjects in contemporary societies. However, personal environmental behaviour in relation to people's professional identity have not been researched. I believe that the better understanding of the underlying processes of the different actors and factors of these identities will help expand the knowledge of environmental sustainability related behaviours for the rest of society. It will also

help with the creation of more effective techniques for tackling climate change in different levels, as well as understand the judgements and decisions people use when contradictory values are present. To achieve this, I am going to study the personal habits of people, working in international corporations, which contribute the most in CO2 emissions. These corporations are at the forefront of the environmental sustainability debate, as their economic importance clashes with harm to the climate. These industries are a frequent target for public protests; however, they also provide economic stability to communities and sometimes entire regions (Spence, 2011). By studying the opinions and exact sustainability related actions of these people, both in their professional and personal lives, I wish to form a clear perspective of how people combine their personal beliefs and ambitions within the company they work in. I used sociological and psychological theories to explain these connections and why people fail to implement certain environmental behaviours, while accepting others.

As climate related issues are influencing rapid changes in people's lives around the world it is important to understand what and how to implement the necessary changes and understand the downfalls of current efforts. Little sociological research has been presented, regarding environmental sustainability in the workplace. Even less have people, working in highly polluting industries, been researched. With this research, I establish a starting point for further research on this subject.

The research question that I wish to uncover: How does the professional identity of people working in large corporations relate to their personal sustainability ideals?

Theoretical overview

Historical overview of sustainability research

According to Bell (2014), the term greenhouse effect was first used by French physicist Joseph Fourier in 1824, when the world scientific community was concerned with the changes in the world's glaciers that had happened since the last Ice Age. He was one of the pioneers of understanding the role of the atmosphere in protecting earth against harmful sun rays and the effect certain gases emitted through human consumption may have in warming the earth. In the 1860s, an Irish mountaineer and physicist John Tyndall identified the gases responsible for the greenhouse effect. He held exhibitions around Europe, practically showing this effect in London and during international tours that attracted great crowds of people. Later, it was discovered that these gases are not only emitted by volcanoes, forest fires and other naturally occurring phenomena. It was proved that human behaviour contributes to the increasing greenhouse effect. Since 1952 and the start of taking measurements of greenhouse gases in the Earth's atmosphere, human contribution to the increasing greenhouse effect is considered a fact. These measurements were later supplemented by empirical research, obtained by studying air bubbles, trapped in ice caps in Greenland and Antarctica. The increasing percentage of greenhouse gases is known as the rising Keeling curve (named after the scientist, who first started observing the amounts of these gases in the earth's atmosphere. During the decades, following these discoveries, the 1960s, 70s and 80s, the public was increasingly concerned about the state of the environment. Political green parties started appearing in various countries around the world and the United Nations established the Intergovernmental Panel on Climate Change (IPCC) - the highest international political body for environmental sustainability. This organization has published 5 major reports on the state of the environment and recommended action toward diminishing the effect that human behaviour has caused. These reports have been widely accepted as the most thorough source of information about environmental sustainability. Along with the agreements, reached in the 1992 Earth summit in Rio de Janeiro, they become the most widely used document, when creating environmental policy.

Environmental sustainability policy

The history of environmental sustainability research was introduced to highlight the fact that the current disregard for this phenomenon, exhibited by multiple political leaders around the world is a deviation from the progress, achieved over the last 200 years. A special report was published by the IPCC in 2019, which reported on the effects that the Earth will experience, when global temperatures have risen to 1.5 degrees above pre-industrial level. The effects include extremely high probability of droughts and heavier precipitation in certain regions, accelerating mass extinction of animal species, more extreme temperatures above land areas, especially densely populated urban areas than in oceans. The arctic and Antarctic regions will experience around a 5-degree increase, more than 3 times that of the average temperature increase, consequently raising the sea level. All these events will have devastating effects on food production, human health, and ecosystems around the world. Changing climate has already had a great financial effect, which is projected to grow exponentially in the coming decades. In 2019, there were 15 events, related to climate change, which have cost more than 1 billion dollars (Kramer & Ware 2019), compared to 3 events in 2010. Seven of these events cost more than 10 billion dollars.

Even though climate change has been a historical fact and was indisputable 50 years ago, a growing number of society members identifying with *climate scepticism* have been observed in the 21st century, especially among world political leaders. The Intergovernmental Panel on Climate Change released a special climate assessment report in 2019, warning of the potential effects humanity and nature will experience, when the median yearly temperature rises 1.5 degrees C, above preindustrial levels. In it, environmental scientists from over 40 countries explained that extreme effects of environmental unsustainability will be felt over the next 25 years by populations across the world. The summarising sentence of this report was that the time to drastically change environmentally related behaviour was 25 years ago, yet it is paramount to take immediate action. Despite this, leaders of various countries have expressed doubt over even the factual reality of climate change. Some have openly disregarded this report and the threat of climate change altogether. The current president of the USA (a country, which contributed more

than ¼ of the total carbon emissions to date, according to the report), has expressed a belief, that climate change is an unscientific truth, created for the agenda of the democratic party. He has disassembled the NASA climate change committee, sold previously protected public land to fossil fuel industries, removed the USA from the 2015 Paris agreement, has reduced the emission standards for automotive vehicles and lifted most of the limitations of greenhouse gas emissions for companies, working in the USA (Millman, 2019). As stated by the Australian international affairs institute (2018), this disregard to environmental sustainability is not an isolated case, as Brazil's populist president Jair Boisonaro has lifted most of the environmental protection laws in the Amazon rainforest and has openly said he wants to destroy the environment. Canada has increased its oil production and deforestation by 127% in the province of Alberta, since the election of the new government. Even the president of the island nation of Kiribati, which, according to the 2016 United Nations weather report will be uninhabitable within the next 50 years, due to rising sea levels, expressed in 2017 that he desires to invest in economic growth of the island instead of sustainability (Vailland, 2018). This shows a growing disregard to the scientific consensus, as multiple peer reviewed studies have shown that more than 97% of all active climate scientists agree that human behaviour greatly influenced the abnormal increase in average temperatures over the past 200 years (Cook, 2016).

The actors of environmental sustainability

The three actors of sustainability, that will be discussed in this study are policy makers, individuals and business enterprises. They are all facing different challenges when implementing pro environmental behaviour and are all influenced by one another. Policy affects companies and individuals; individual buying habits and trends influence company production and tactics; individual activism can influence policy both at a company level, as well as nationally; companies can lobby for certain policy implementation. The common measure, determining the actions of these actors in contemporary society is economics (Dryzek & Norgaard, 2011). Because of this, although all three actors influence each other, the largest role of environmental action construction is attributed to large corporations: "National governments are embedded in market

economies that constrain what they can do, and the social realm is often limited by economistic frames and discourse" (Dryzek & Norgaard, 2011, p.4). Therefore, it is the companies that are the focal point of contemporary pro-environmental behaviour making.

In this research I aim to understand the impact that working in a corporation, acting in unsustainable ways has on individual values and actions, regarding climate change. First, I am going to briefly explain the impact that all three actors have on the environment. Later, I will examine the difficulties that all three actors experience, while implementing pro-environmental behaviour. Third, I will explain the underlying psychological and sociological factors that influence pro-environmental activity.

Pro-environmental behaviour on a policy level

Environmental issues and their implementation through policy is a relatively under researched subject, especially finding recent works has proven to be difficult and is a subject, warrant for further study. Dupuis (2011) studied the hurdles that the Swiss government was facing when implementing a sustainability agenda into their action plan. He used these categories, established by Wilby and Dessai (2010) for the limitations that governments worldwide face, when implementing environmental sustainability measures:

- Economical (high level of poverty, lack of investments, or financial resources)
- Ecological (geographical constraints, lack of natural resources)
- Technological (small knowledge base, inability to implement new methods)
- Weakness of state institutions (high corruption, bureaucracy, high number of stakeholders).

In the case of Switzerland, a developed and wealthy country that is highly susceptible and vulnerable to climate change because of its Alpine topography and the economic, as well as cultural importance of the snowfall and glacier strength. Yet even though the acceptance of the importance of environmental sustainability was defined in 1992, in 2011 the country's government was still in the process of discussing the appropriate action plan and policy. The

author studied multiple documents, made public by political parties since 1992. Several conclusions were made after studying these documents. Firstly, in Switzerland, not unlike many other wealthy industrialised nations, climate change is regarded as an issue that only affects the developing world. Therefore, it was not deemed urgent to introduce concrete action, limiting the country's use of resources, or allocating finances towards environmentally sustainable technology development. Furthermore, adaptation was rarely mentioned to be important when actual laws were discussed. This meant that the government was unwilling to even discuss the possible measures for the inevitability of the need to prepare for the changes, brought about by climate change. Finally, a clear difference was observed between the rhetoric of the left- and right-wing parties. Not unlike in the USA and other bilateral governments, politicians of the right openly and almost completely disregarded environmental science and did not accept, or even discuss the possibility of allocating money towards issues, regarding environmental sustainability. This proved a common theme in world politics, as conservative groups believe it is more important to address economic issues and not consider climate change a real threat, thus making environmental sustainability a political, instead of factual issue. This thought was expanded upon by Engels et al. (2013). These researchers added that climate scepticism was most prevalent in Anglo-Saxon countries, where the popularity of liberal policies prefers short term monetary goals and this approach resonates in society. It is even harder to coordinate efforts for international governing bodies. The EU continues having difficulties with the implementation of their environmental policies in member countries. This organization found that the best way to incentivise governments to implement the directives were through public participation, transparency, self-regulation and most importantly, financial incentives (Knill & Duncan, 2013). However, coordinating efforts has nonetheless been difficult, particularly in countries with less stable governments.

The election of the leaders, mentioned in the chapter above acts as a manifestation of sentiments, felt in societies these politicians represent. As Karwat (1982, p.203) put it: "Political values are ideas that express the attitudes of large social groups". The reasons, why anti-climate officials are elected and why pro-environmental policy is difficult to implement is because

individual members and groups in society do not see the issue as serious enough. The reasons behind these sentiments would be too broad to cover in this thesis. In short it is a result of competing values and human psychology.

Pro-environmental behaviour at the company level

The second agent of environmental sustainability are business enterprises. As the aim of this thesis is to study the most polluting industries, the emphasis of the analysis will be placed on the large industrial and commercial enterprises. Even though they must abide by the laws that are put in place by the governments, as established earlier, this process is difficult in practice. Political leaders are influenced by many factors, that in many cases prevent them from taking strict action, especially regarding environmental sustainability. It is not difficult to observe that large corporations have a great impact on the environment. The 2017 Carbon Majors Database report stated that 20 companies have contributed to 35% of the total fossil fuel emissions since 1965. Shifting the priorities of these companies is a vital goal for the success of the fight against climate change. All companies are faced with this challenge and studies have been executed, to evaluate the approaches that different companies employ to improve their environmental sustainability. The most prevalent issues are evident with manufacturing practices in developing countries. The United Nations Sustainable Manufacturing and Environmental Pollution program 2019 report states that these problems arise due to the lack of technological know-how, necessary investments, and underdevelopment of manufacturing facilities. These factors result in high carbon emissions, pollution, environmental degradation and an inefficient use of power and resources and cause harm to the environment and in many cases, result in long term health problems for the workers of these companies.

Eccles, Ioannou and Sarafeim (2011) studied the performance of companies, who have implemented sustainability values in their conduct and tracked their performance against companies from the *low sustainability* group. They found that by implementing sustainability related actions, companies greatly improved their performance by attracting better workers, were less vulnerable to sudden policy changes, had a more loyal customer base and favourable

brand image. This research proved that sustainable behaviour does not result in lower profits. This poses another point of interest while researching personal environmental behaviour of the employees in both types of companies. According to the authors of the research, the majority of the values of the company are determined by their management. This was further proven in research of sustainable behaviours in the workplace, completed by Robertson and Barling (2012). In their research, they concluded that pro-environmental behaviour, exhibited by the leader of the company is the leading tool for successfully introducing pro-environmental behaviour in the workplace. Managers of organizations have the biggest impact on traditional organizational outcomes, including employee attitude and loyalty, financial and organizational performance (Barling, Christie, & Hoption, 2010). The leaders' descriptive norms toward pro-environmental behaviour were also a strong indicator of the in-office environmental actions. However, it remains unclear, whether the influence lasts beyond the employee workplace behaviour. The influence that the leaders can have on the employee mindset towards the environment is represented in the scheme below:

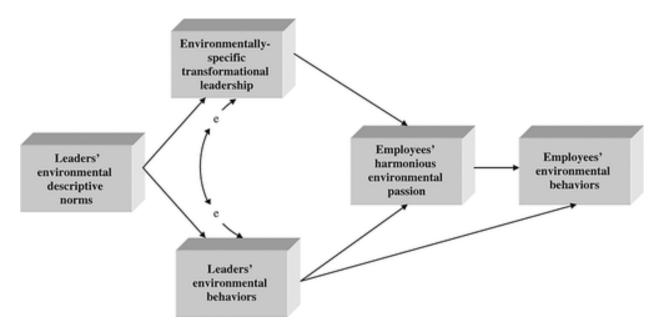


Figure 1: Model of leader influence on employee pro-environmental behaviour. Taken from: Greening organizations through leaders' influence on employees' pro-environmental behaviors, by Robertson L., Barling J., 2012, p. 3

The way that leaders and managers of an organisation present themselves and their environmental values in front of employees indicate their own PEB in the workplace. If the managers display a persistent passion toward environmental issues, the same behaviour is displayed by the employees of the company.

The employees, especially when unionised, can influence company policies as well. Throughout history, unionized workers negotiated for higher pay, better conditions, or implementation of pension, or healthcare plans (Leana, Ahlbrandt and Murrell 1992). However, there were instances, where employees pressured companies into making pro-environmental changes in the company. This was exemplified by the march for sustainability in New York in 2019, in which workers of the largest technological companies of the USA demanded more comprehensive action from their companies, regarding the environment. As a result of this march, the online journal *wired* reported that workers of Amazon, Microsoft and Google signed the Tech Workers Coalition, which will be used to pressure the management of their companies for more aggressive action towards sustainability. This union was set up specifically to monitor the progress of reducing carbon and nitrous emissions, efficient energy usage, and a change in investment strategies to favour renewable energy companies over fossil fuel industries.

Pro-environmental behaviour at the individual level

The third level of environmental sustainability are the individuals. Even though they do not have direct influence on the policy and are not directly responsible for the largest amount of emissions, individual behaviour has a great effect on the environment. The primary factor in this effect is consumption. The 2019 report by the Centre for Behaviour and the Environment estimates that about two thirds of the greenhouse gases emissions are contributed to direct and indirect consumption of the human population.

According to the same study, even though contemporary societies are more aware of their impact on the environment, they do not tend to change their behaviour. Instead, financial security and comfort were prioritized when a change in established habits was necessary. In her 2010 research, Cooney observed that residents of California, a progressive state on most matters,

repealed the state's ambitious plan for reducing the state's carbon footprint until the unemployment rate reduced to less than 5.5 percent. Other factors are also interwoven into the debate on climate change. Pro - environmental behaviour requires a large immediate investment, a change in established behaviours and to see this issue as more important than their immediate needs and wants. This was further studied by Young et al. (2015), who concluded that a changing attitude does not constitute a behavioural change, when addressing environmental issues. Whitmash (2009) found that even when people change their habits towards lower consumption, it is usually done out of monetary factors and not regarding the environment. The author of the study surveyed American workers on their sustainability-related behaviour and found that 64 % have not taken any steps towards environmental sustainability. 11% of all respondents indicated some form of constraint to their activities, by answering "when possible" and "I try to". The most practiced environmentally conscious behaviour was recycling (17.6 percent of respondents) and energy related behaviour (32,4%). The latter behaviour entailed actions as turning off the lights when not using the room or purchasing energy efficient light bulbs. Finally, when asked to indicate the reasons for showing climate-conscious behaviour, the most common answer was saving money, or convenience, whereas moral obligations were less influential in their decisions. This study showed that morality and ethical reasons to conserve the environment were less influential than other factors when judging actual actions towards climate change. This proves that monetary and convenience aspects influence merely the person's viewpoint on climate change.

Another study, specifically researching sustainability in a work-setting, however, found the opposite to be true. Blok et al. (2015) looked at encouraging sustainability at the university workplace, by looking at the best strategies of introducing and sustaining pro environmental behaviour among university employees. Pro environmental behaviour in this study was defined as actions that aim to diminish the negative ecological consequences of the natural and built environment (Kollmuss and Agyeman, 2002). The study of university workers concluded that the most prominent factor in determining whether a person will engage in pro-environmental behaviour is the intention to act. This means that commitment to change their habits was the

most important factor when understanding how the action to fight against climate change takes place.

This finding directly contradicts the studies, discussed earlier in this thesis, which found that intentions and positive outlook does not usually constitute pro-environmental behaviour. By studying more economics - driven fields, such as oil and gas industry company workers, I hope to gain a more conclusive view, if the pro-environment behaviour and the admittance of a problem actually correlate in the workplace, compared to other personal goals within the company.

Psychological and sociological analysis of environmental behaviour formation

To explain the difficulty of policy implementation and cognitive factors that influence individual and company action, discussed in previous chapters, as well as those observed during the interviews, several psychological and sociological theories were implemented.

The influences people experience when determining, whether to perform PEBs are divided into internal and external (Clark, Kotchen and Moore, 2003). The first group - internal factors are further classified as social factors, cognitive factors, and affective factors.

The social factors are subdivided into social norms that represent individual beliefs, which shape actions and personal norms, which represent the beliefs that one shares with their closest social group and understands, how to react and behave, when faced with this issue. According to Norlund & Garvill (2002) these norms serve as the neutral predisposition that influences people's behaviour towards climate change. This means that people most usually behave according to the norms, established in their immediate social circles.

Cognitive factors encompass the environmental awareness and the extent to which a person believes he has the ability to control their environmental influence. If a person is more aware of environmental problems, chances are, he will show more pro-environmental behaviour (Becker, 1978). This factor can be further expanded to include education and the news/media channels

people consume in their daily lives. The type of knowledge that people consume, as well as the sources, which they trust can influence the formation of their opinion on environmental action.

The final group of internal factors are called altruistic traits. Usually, the more people are interested in others outside of their immediate social circle, the more they will be concerned be with others and show compassionate behaviour. This concerns environmental activity as well. If they are interested in activities outside of their own surroundings, if they are interested about crises in other communities and countries, they are more likely to engage in pro-environmental behaviour, even if they do not feel the effect of unsustainability in their daily lives. This factor is also closely related to selfishness. Valuing yourself over overs and self-serving behaviour were negatively impactful in determining positive action towards the environment.

The second group of factors are external. They are dependent on the group of circumstances that influence people's behaviour towards the environment. The more obstacles people must overcome to be pro-environmental, the less chance there is that this behaviour will be exhibited. Whereas, if the possibility to be pro-environmental is easily accessible, the positive behaviour is exhibited much more frequently (Gill et. al 2007). This applies to both policy and environment adaptation of living areas and the workplace.

Psychologically, people naturally oppose a change in their habits and even more so when the change is not influenced by inner motivation. This phenomenon can be explained by several psychological theories, primarily by the intertemporal choice theory, developed by Loewenstein & Prolac (1992). This theory states that behaviour, such as environmental sustainability requires sacrificing short term goals for long term ones, which is difficult for people to comprehend. In the short term, it benefits the individual, companies and the national economies not to develop new production or energy production methods and technologies that would be environmentally sustainable, as they require an initial investment and a change in established practices. Even if it is known to be economically detrimental in the long run, people tend to view it as the more logical choice. According to the same theory, people cannot easily comprehend and evaluate nonlinear problems. That means it is difficult to understand the logarithmic issue climate change,

which is going to rapidly progress after decades of slow development. Finally, the construal level theory comes into effect. It describes the difficulty for people to conceptualize psychologically distant things. They are experienced and understood at a more abstract level than things that are psychologically close (Trope & Liberman 2010). For a long time, environmental changes only affected far away areas of the planet. Shrinkage of the ozone layer, or the melting of the ice caps in Antarctica are difficult to conceptualise. People are most alert to threats that are happening in an environment that is close or personal to them. Another relevant psychological theory for explaining individual environmental behaviour, relevant to this thesis is the cognitive dissonance theory. It postulates that people, who are committing a selfish act, which is morally or societally disfavoured, experience a conflict within oneself and try to correct this behaviour by committing insignificant actions that make the bad feelings subside and makes the person feel morally good (DellaVigna, 2009). This mechanism can be used to explain the logic people employ, when allowing themselves to eat ice cream, while on a diet, because they climbed the stairs. This phenomenon was researched in case of environmental studies by Thøgersen (2004). In this research, the author surveyed random passers by in a shopping mall and questioned them about their consumption habits and beliefs of environmental sustainability. Although the respondents all were in favour of committing certain easily achievable changes, such as recycling, failed to implement other changes, such as limiting their shopping habits. The authors viewed this inconsistency as the failure to make connections between different pro-environmental behaviours. Another possible explanation was that the unpleasantness of cognitive dissonance was affecting people less than the actual changes to their established patterns, that are required for this change, would cause.

The sociological theory that I wish to examine, in relation to the research subject is the theory of intersecting circles, developed by Georg Simmel, in early 20th century. It postulates that in industrialised, densely populated societies the social roles that people fulfil are varied. Therefore, their social circles rarely intersect. Because of the possibility of staying in one's established bubble, people do not have the need to extend their knowledge outside of something they already believe in. Whereas those in smaller societal groups have social circles that are more

open and thus can be influenced more easily. The theory's relation to the research subject will become more clear after reading the results section of the thesis.

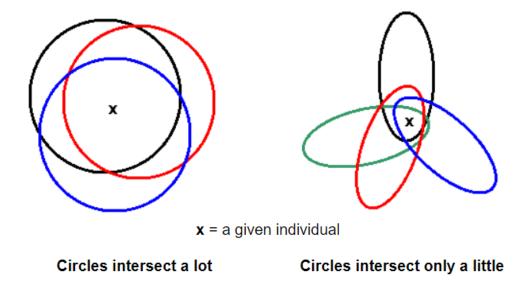


Figure 2. Visual representation of Georg Simmel's theory of intersecting circles. Taken from: Frederick Weil, LSU; Internet access: https://www.lsu.edu/faculty/fweil/SimmelCircles.htm

Contemporary society is undergoing a transformation period. It is time of rapid change, technological advancement, emergence of populist leaders and their doubt on the actual legitimacy and truthfulness of climate instability and the organizations researching and reporting on it. This doubt has in turn represented itself in societies around the world. It has persisted even through direct evidence and influence on people's lives, with floods, droughts, fires, earthquakes and hurricanes happening with increased frequency. Despite this, a high number of society members find it difficult to change their behaviour to make it more sustainable. The factors that influence this are ingrained in human psychology and are explained by several theories and manifest by:

- The inability to understand a logarithmically progressing issue, such as climate change
- Prioritising short-term goals, such as monetary gains, or convenience vs. long term security

 Inability to identify with issues that are psychologically and/or physically distant from the immediate surroundings of the individual

As determined in the theoretical review, environmental sustainability is an incredibly complex and interrelated issue. There are three levels of actors in the environmental sustainability pyramid. These are policy makers, large companies and individuals. All of these actors have specific factors that are holding them back from making more immediate progress and taking action towards environmental sustainability. That is the case, even though the majority of all the actors understand and openly see human caused climate crisis as a potential threat. However, as established by examining several psychological theories and examples, attitude and behaviour do not always correlate. In addition to this, convenience and economic gains are usually prioritized over pro-environmental action.

Methodology

The aim of this study is to understand the relationship of the career goals and personal environmental values that people experience, when working in heavily polluting industries. To achieve this goal, 10 semi-structured interviews were conducted with environmentally conscious employees of large manufacturing and oil and gas companies. This group was chosen, as on the one hand, they chose a career path in an industry that is known to be harmful to the environment. Therefore, in accordance with previous research, this group has the highest probability to value their personal convenience and economic wellbeing over environmental issues. However, by identifying as concerned about the environment, they should also exhibit pro-environmental behaviour. With this juxtaposition of values, I aim to uncover certain facts about environmental behaviour and how these choices can overlap, influence each other. In addition, this group can provide an extreme first-person perspective, of how to implement change in companies that require the biggest changes. By understanding their background, the reasoning behind their work choice and the connection to their beliefs about climate change, I hope to create a blueprint for environmental awareness in the rest of society. The selected employees and their habit formation will hopefully serve as an example of implementing environmentally friendly behaviour. At the very least, it will provide insights of value formation on an individual level, in the most extreme money-oriented environment.

Sampling

I wanted to make sure that the selected sample could be regarded as the outlier of the juxtaposition of environmental awareness and career goals. To achieve this, I chose people, working in 4 industries that, according to the IPCC 5th report (2014) are the biggest contributors to greenhouse gas emissions. The industries selected were oil and gas, toy manufacturing, industrial chemistry, and cosmetics. As an outlier, a person, working at one of the largest technological conglomerates of the world. This was done in part to measure of the importance of the field, in which the company operates and its effect on the worker's environmental outlook.

This also provided insight into the environmental influences people in other industries, which was regarded as potential for further research. As the required sample was specific and required to meet several criteria, criterion sampling was used (Lindlof & Taylor, 2011, pp. 112-113). The most important criterion was the industry, in which the employees worked. 20 employees each, from the top 4 companies, working in each indicated field, were selected. Employees had to have worked at the company for more than 3 years, to reduce the chance of short-term workers that would not be representative of the required sample. The targeted respondents had to be working at a lower management level, so they would have influence in the company, yet have an opinion of the higher management within the company, as that was an important aspect of the research. As the sample was already quite mixed, due to the variety of industries, positions and countries, an age cap of 35, was selected. This was a homogenous variable in an otherwise varied sample. Additionally, previous research suggested that age is a relative factor of environmental awareness. Placing the age limit improved the probability of reaching environmentally aware workers. Finally, the targeted respondents had to not be related to the environmental section of the company. This was done to avoid the possibility of formulated responses and adhering to the official public relations side of the company. Age was a stable variable, while other traits of the sampled respondents were as varied, as possible, to increase the scope of the research and form conclusive results. As the impact of the country and its laws was important to the study, I targeted people from diverse cultural backgrounds. In addition to this, the country, in which the selected companies operated were diverse as well.

To access the respondents, I used the social media platform - LinkedIn. The website is specifically created for professionals and this allowed me to efficiently find companies and their employees, who fit the aforementioned requirements. I contacted the selected respondents through the platform's in-built messaging system, introducing myself, the research and asked them to participate in the interviews. The targeted companies were large corporations, operating around the world, with offices in different cities with a large pool of potential respondents. However, after 2 weeks and 248 emails sent, 74 responded, of which only 3 people responded by agreeing to participate in the survey. I did not expect this low turnover, as I explained to all

potential respondents that only their personal view and opinion would be questioned, nor them, nor the company name would be mentioned anywhere in the thesis. There were several instances where the contacted workers responded that according to their company policy, they are not able to comment, even on their personal experience. In my personal opinion, the targeted position within the company was too ambitious, as I contacted people at a managerial level and targeting junior positions may have had a better response rate.

As contacting through LinkedIn did not produce the desired results, I implemented other recruitment strategies. As I personally had several acquaintances, that were at one point involved with companies, whose workers I desired to research, I reached out to them for contacts within these companies. In addition to this, I asked every respondent, who had completed an interview to recommend a colleague, or acquaintance that would be suitable for an interview. This resulted in implementing snowball sampling, which is most frequently utilized to recruit "an elusive, hard-to-recruit population" (Lindlof and Taylor (2011, p. 114). This was indeed the case, as the subject matter was dangerous to comment on for the companies I was researching, made evident by the extremely low positive response rate that I experienced.

In the resulting sample, the respondents' age ranged from 27 to 35 years and the proportion of men to women was 4 to 6. This was not deliberate, and, as indicated earlier, resulted purely because of snowball sampling. The nationality and country of residents of all the respondents varied greatly. In the sample there were 2 people from India, one working in western Europe and one in India; 1 Venezuelan and 2 Brazilians, all working in north western Europe, one Canadian, working in Canada, a Central European, working in the USA, Southern European working in the UK and 2 central Europeans working in Western Europe All the respondents had master's degrees from prestigious European, or Northern American universities and had spent time living in at least 2 countries throughout their lives. 4 of the respondents were working in the oil and gas industry, one in a cosmetics company 1 in the toy industry, 1 in the chemical industry and one in a technological conglomerate. Finally, the last respondent was a sustainability and communications expert, who focused on improving the environmental sustainability tactics of oil

and gas companies. The sample that I managed to get provided a varied insight into the different tactics, employed in companies of different fields and helped form a fully rounded opinion of the research subject.

Method

As the method of the research I chose semi-structured interviews. This allowed me to be more inquisitive and perceptive about the immediate answers of the interviewees and be part of the conversation with the respondents. The research aims to understand several complicated issues, including self-justification mechanisms, choosing long term goals vs short term rewards, monetary security. Semi structured interviewing allowed me to understand the motives, reasons, and values behind people's decisions of pro environmental behaviour (Given, 2008). The factors and reasons behind these behaviours were diverse and required input from me, as the interviewer. Semi-structured interviews allowed me the flexibility to adapt to each respondent, as the backgrounds and their industries were different. Therefore, different focus areas appeared during the interview. The chosen method allowed me to adapt the questions to acquire relevant information from each interview and gain a more thorough understanding of the subject. The chosen approach made each interview unique, yet, taken together, let me construct a fully coherent picture of the sustainability practices of the people working in the studied corporations and form relevant conclusions. Semi-structured interviews were chosen instead of unstructured interviews, as the connections of people's environmental behaviours were already established in previous research and the chosen method provided a better structured interview process. Finally, there are various possible interpretations that are frequent when talking about environmental issues. Selecting semi structured interviews allowed me to maintain cohesiveness throughout the interviews and explain the exact definitions of areas that I wished the respondents to focus on.

Interview process

The people interviewed were questioned on a sensitive issue, particularly in their field of work, therefore I had reservations about the openness I would be able to achieve with people I

had never met before. Due to the outbreak of the Covid-19 virus and the resulting quarantine, I was not able to conduct the interviews face to face and all of the interviews were completed using online chat programs that were convenient to the interviewer. As these were semi-structured interviews, an interview guide was developed, deriving from the previous literature and psychological/sociological concepts. It was focused on the respondent's personal viewpoint and inquired them about their actions, and experience with environmental sustainability, both in and outside the workplace. Their career path and goals were examined, as its relation to their environmental values. Particular interest was placed on the industry, in which their company operated. The viewpoint of the company's management towards environmental sustainability and other factors that influenced their environmental beliefs and behaviours.

The themes of the interview guide were divided into:

- The respondents' personal opinion about climate change
- Questions, determining the external/internal factors, that define the respondents' decision-making processes relating to environmental sustainability
- The company policy and the respondents' viewpoint on the environmental decisions of their company
- The concrete actions and behaviour that the respondents take towards the conservation of the environment

Due to the sensitive subject matter, and the fact that the majority of the interviewees did not know me personally, to get representative results, it was important to create rapport with the respondents. There was no opportunity to establish an un-intimidating environment by the setting, as the only option was to conduct them online. Ideally, the setting would have provided a relaxed and friendly atmosphere through physical proximity (Bell, 2014). To minimise the adverse effects that conducting the interviews online had, the first 15-20 of every interview were dedicated to familiarise with the respondents and establish why I am interested in their particular point of view (McGrath, Palmgreen & Lijedahl 2019). Excluding this part, the recorded interviews

lasted 42-68 minutes. All of the interviewees that accepted to be a part of this research were interested in the subject matter and were openly discussing the researched issues, openly shared their behaviour and the policy of their companies, sometimes even accidentally giving away information that they later asked to not be included in the transcripts. The transcripts of the interviews were supplemented by notes, that included comments about non-verbal communication and particularly important points.

Analysis

Descriptive analysis was used to analyse and formulate conclusions about the interviews. In accordance with Gill (2000), the analysis of the interviews began by transcribing and reading the interviews until the information provided in them was associated with every interview. Relevant parts of the interviews were identified and highlighted and defining sentences underlined (Gill, 2000, p. 179). These relevant parts were coded and patterns between all the interviews were analysed. As one of the main challenges during the interviews was transparency and honesty of the respondents, the wording of the answers was taken into account. Certain points about company policy were fact-checked with public information about the company's policies.

During the transcription process, the names of the respondents and the companies they worked for were changed. The respondents are mentioned in the analysis by a numbered system, in accordance to their interview number. Their nationalities and the countries of residence, as well as the field in which their companies operated, remained unchanged with the consent of the respondents. Most of the respondents had little difficulty communicating their habits and I frequently had to adjust the question guide, while interviewing, as the respondents frequently expanded their answers, without input from the researcher. This complicated the analysis, as the structures of the interviews were different from one another, as different thoughts came in at different times of the interview. Similar themes emerged, however and the analysis produced interesting results. Even though the number of interviews was relatively limited, the fact that the

respondents had different backgrounds, nationalities and worked in different industries, contributed to comparable, yet sufficiently different answers.

In my analysis, I used the Foucauldian ideas inspired approach of discourse analysis. The study subject focuses on an issue of social critique (Jørgensen & Phillips 2002). One of the main questions that I wished to uncover was what influences people experience, when forming their opinions and environmental values. The group that was researched had been influenced by career ambitions, the company's policies, as well as their upbringing and the countries, in which they work in and live that formulated their values and environmental awareness.

Research question

 How does the professional identity of people working in large corporations relate to their personal environmental sustainability ideals?

Related research questions:

- How does the implementation of pro-environmental behaviour in the workplace influence this behaviour in personal life?
- What are the main factors that limit the adoption of pro-environmental behaviours?
- What are the main factors that influence personal environmental ideal formation?

Through these questions I wish to form a cohesive narrative of the factors that influence the pro-environmental ideals of the people working in large corporations. Firstly, the position of the company itself will be taken into account, second, the personal perception and climate change awareness will be measured. Third, the positive/negative influence of working in this type of company will be determined.

Key term operationalisation:

Company culture will be regarded as defined by Hills, Jones & Schilling (2014) — the specific collection of values and norms that are shared by people and groups in an organization and that control the way they interact with each other and with stakeholders outside the organization.

Pro environmental behaviour - "individual behaviours contributing to environmental sustainability (such as limiting energy consumption, avoiding waste, recycling, and environmental activism)" (Mesmer-Magnus et al., 2012: p. 160). This definition of the term will be used both when discussing the behaviour of individuals and companies.

Environmental sustainability is defined as a set of behaviours, serving as a boundary for humans and corporations to satisfy their current needs without compromising the quality of environment/ecosystem in any way, so that it remains equally capable of supporting the future generations too (Ferranti, Berry & Jock, 2018).

Climate change is the most prevalent issue, caused by environmental unsustainability and is defined as: changes observed in Earth's climate since the early 20th century primarily driven by human activities, particularly fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere, raising Earth's average surface temperature (NASA, 2020).

Results

In my study I researched individuals, working in large corporations, contributing to a sizeable part of climate change influencing emissions. Below, I present the effects working at these companies had on their personal sustainability related behaviour. I will present the results of the influences that contributed to their personal environmental values. I will also examine the viewpoint of the management of these corporations and the causes of company rules and practices, relating to the environment and the influence of that to individual environmental behaviour formation. Finally, general tendencies and common areas of concern, as well as reasons of why pro-environmental behaviour implementation is difficult, are identified.

Personal environmental action

All of the respondents expressed a deep concern for the environment, during the introductory phase of the interview, as that was one of the prerequisites that was posed when creating the sample. However, that only meant that they expressed their concern and the first part of the interview guide was constructed to understand the exact actions they actually implemented in personal lives. All the respondents had a good understanding of the environmental sustainability issues and conveyed concern over the topic and the need for swift action. Respondent no. 5 expressed her viewpoint by saying:

"And that is something that it's not only close to us, it's something where that we should do our part. It's now, it's urgent. "

All of the interviewees were consciously making action, to minimise their impact on the environment. The most common actions were recycling, minimizing plane travel, not owning a vehicle, reducing production of waste usage of plastics. Certain actions, such as recycling, not using plastic, or single use products, and efficient energy usage were oftentimes even disregarded as self-apparent and not worth mentioning. Respondents cited actions, as recycling as something "taken for granted" (respondent no. 1), before continuing to perceivably more ambitious steps. For some this behavior was changing their eating habits and stopping using

products, derived from animals, or limiting new consumption. As the person, working in the toy industry put it:

"I always ask myself, do I really need a new one? Because if that's the case, then you're going to throw out throw away the old thing that you have so I think, it's still good to use so I don't buy it."

After discussing the obvious behaviour changes, such as recycling, or limiting their use of plastic, they expressed a willingness to take further steps. For some it was stopping consuming meat, or other products, derived from living beings; for others, it was making their own personal hygiene products, or creating compost in their garden. The exact actions, that were most important to implement in the future, were different for each of them.

After explaining the desire to be more environmentally conscious, in most cases, people also admitted to willingly continuing a behaviour that was detrimental to the environment. Sometimes, it was expressed with an admittance of guilt, as was the case with respondent no. 7 and her use of single use diapers:

"I really considered doing the reusable ones. But I couldn't bring myself to do that. I think I chose selfishly not to do that because I cannot possibly. Even now, I gag every time. "

Whereas others were justifying their actions by mentioning outside factors that were prohibiting them from implementing certain behaviour. To some, it was cold weather, that made public transportation not a viable option, to others, the convenience of buying something in the supermarket, instead of making a trip to the local market that happens not as often. The way these were said mimicked the same way, people explained the perceivably "obvious" behaviour, such as recycling. Something that was out of the realm of their perceived "logical" effort, or which was easily achievable, was disregarded in much the same way, as something that has become second nature.

With all this said, most people acknowledged that individual impact is not the most important part of environmental sustainability, as policy and the actions of big companies and

policy makers were regarded as much greater than individual impact. This fact was also connected with age and experience. With the implemented age cap of the sample, age homogeneousness was the main issue of concern. Despite this, there was more belief in their personal impact among the younger participants, than of those in the more experienced group. However, taken together, the general idea of the impact of individual behaviour could be summed up in one quote by respondent no.5:

"Philosophically, I believe that if you can make a little bit of difference even though it's not transformative, you should try to make that difference."

The respondents of this research wanted to make a positive effect on the environment. The same thinking applied in their professional life, which will be discussed in the following chapter. Even though they may not be able to make a great difference worldwide, the small changes that they could make in their daily lives were worth making an effort for.

The duration, that they were concerned in environmental issues varied as well. For some it started in their childhood, whereas others had become concerned and implemented some proenvironmental habits during the last 5 years The factors behind the change will be expanded upon in the coming chapters, however the most common one was observed among 9 of the participants and it is the effect that the country, in which the respondents lived and work had on their environmental awareness.

Company behavior

Based on the account of the respondents, of their previous and current work experiences, company environmental actions were categorised into 4 levels:

- Openly opposed to environmental agendas and lobbying for more relaxed regulations from the government.
- Non existent environmental policies within the company, even though the problem is advertised as important

- Implementation of business optimization, such as supply chain management, diminishing the use of plastic and paper, initiatives of work from home and travel by bike/public transport, vegetarian meal inclusion.
- Full commitment to carbon neutrality, renewable resource usage, incentives for proenvironmental behaviour among the employees.

One of the more interesting findings in this study is the behaviour that the companies, in which the respondents worked at, belonged to the last two categories. This was because the industry that they were operating at, was environmentally unsustainable and required critical thinking about this issue. As respondent no. 7 put it:

"if I was working in a company that was making cookies, I doubt we would be talking as much about it but because I am in the industry where I am and because it is important, and because society knows that it's important, the conversation is much more prevalent"

The amount attention that companies in these industries are given by the public, shareholders and policy makers influence their behaviour. The people in the sample had worked in multiple fields, in different countries, and their current environmentally unsustainable industries employers implemented the most extensive programs of environmental awareness, especially within the company. Although it may be just the case in the companies, from which first-hand knowledge in this survey was obtained, according to the expert consultant, who is working with similar companies on their environmental strategy implementation, it is a common trend. Especially the regulations and incentives, regarding employee environmental behaviour are very advanced, especially in companies, working in Europe. Respondent no.3 explained the steps her company was taking to reduce their environmental footprint:

"They have goals for printing less papers, you have all the possible things for recycling well, you have almost no waste, food waste. And they talk about it often. I think it's very inspiring for employees as well that comes back to what I was talking about that we as human beings, we often get inspired by what is happening around us."

Similar actions were implemented in companies of other respondents as well. All of them included cycle to work, carpooling and public transportation incentives, vegan and vegetarian food days at the company's cafeteria and the promotion efficient paper and energy use. One of the oil and gas companies even provided free work days for their employees to volunteer for environmental initiatives and created charity events to raise money for environmental organizations.

To most of the respondents, this was a clear departure from previous work experiences. Several respondents shared their experiences, in which almost no effort was put, to introduce sustainability practices.

"I cannot think of anything that they did for the environment. <...> There was zero effort"

- Respondent no. 7

"Okay, yeah, let's just print like 100 page book for five people on one sided paper for just a 10 minute, catch-up meeting. Like, that's insane." – Respondent no. 6

Similar practices were observed by other respondents in their previous workplaces. An interesting experience was shared by respondent no. 4, who is a vegan, about her first job in Europe.

"when I moved to Copenhagen, I started working for a wind farm company. So, I was very happy that I was working for a sustainable company. So there was, of course, a lot of talks on sustainability and reduction of co2. However, they continued to provide food that was 100% meat based and <...> sometimes I couldn't eat anything."

As is evident from the provided examples, big manufacturing companies feel the most public pressure and thus take environmental action seriously. According respondent no. 3, who works as a sustainability advisor to various oil and gas companies, the companies in unsustainable industries feel the most urgency to change the ways they are conducting business. It starts by implementing strategies to improve their operational policies then is carried to within the organization. Working in these companies had the opposite effect on the employees than would

be apparent. This even made working in this field a desirable prospect for environmentally conscious people, who wished to make an immediate positive impact on the environment. Respondent no. 7, who is part of the human resources department in a large oil manufacturing company, noted:

..." for the main talent of my company, yes, I think it's a very big attraction point, the fact that they can influence that from within and make a difference."

However, it must be noted that this is a rather new change in company policies. The described changes in company behaviour are a rather new development. It was not uncommon for that change to follow a highly publicised environmental event. That was indeed the case with an oil and gas company of respondent no. 7, as she said:

"and especially after the accident in, in the Gulf of Mexico, I think that conversation has really <...> reshaped the company"

Respondent no. 8 had a similar experience in the cosmetics industry, where new policies were also introduced only after a news story about the company's behaviour in their Asian production sites and the effect it had on the local environment. Because of these circumstances it is difficult to determine, whether there is an actual shift in unsustainable company behaviour, or it is simply way to construct a new image of the company for its shareholders and improve the company's image in society. Respondent no. 1 noted that public image and perception of the brand is one of the main motivators of this systemic change.

"It's just done to avoid PR damage. Even when truly bad things are done. They're just on it to make sure, that, you know, there is no PR scandal".

Another important point is that this approach is not implemented in all departments and countries that the company is operating at. That is related to the cultural importance of environmental values in the market that the company is in. It was clear from the interviews that the same company's environmental sustainability values in certain countries were different than those they experienced. In addition to this, although it may be top priority in certain cases,

environmental sustainability is only one of the issues that these companies have to deal with and attention is divided accordingly. All of these issues will be expanded upon later in this chapter.

The last point I want to make about company environmental policies is the role of management. As was postulated in the theoretical overview, the majority of the decisions in the company and the values that are established in it, come from the managers. The changes that were experienced by the respondents happened because of a change in the management and their viewpoint.

Factors, influencing PEB among the workers

In this chapter I will examine the influences that people in this research experienced when forming their environmental values. The interview process intended to understand, how the respondents formed their environmental opinions and the reasons behind them.

Social influence

As established previously, working in large corporations in industries has a positive effect on their workers, as the companies are at the forefront of transitioning to environmentally sustainable practices. Company policies have an effect on the PEB of their employees in the workplace, because of the incentives and culture that are placed. This creates an environmentally responsible workforce that is enthusiastic about accepting the proposed changes and implements PEB in their personal life. In case of the people in the research sample, colleagues in their respective companies had a great effect on their behaviour. In addition to this, the sample that I chose were working

"Yeah, I think on a personal level, I've also been affected by my colleagues" — Respondent no. 5

"In the UK, the main people around me are my colleagues. So we, we kind of share that in a way" Respondent no. 7

"working here at cosmetics company I feel that I've been mostly affected by the people around me. The whole office has become part of the group. <...> and it's the people that I spent 10 hours every day with" – Respondent no. 8

Work consumes a large amount of time of the people, working in these industries. Because of the approach of the company, the people working there become part of the system and introduce new people to their practice. This was particularly true of people, coming from Latin American, southern European and Asian countries to work in Western Europe. There were 5 such people in the sample and for all of them, the work social environment had the greatest impact. They had not formed environmentally friendly habits in their home countries and their previous social circles and companies they worked for. For them the work and social aspect had a great impact through exposure, habit formation and education.

Others form their environmental sustainability ideals through family social circles. In the case of respondent no. 6, whose interest in the environmental awareness was cultivated by her family:

"I think that that was the impact that probably my brother and sister in law had, that they became a lot more conscious because of the government and it was not just because of my personal journey."

Social influence can also come from the social and political groups that you identify with. People respond to the information that they consume and the ideologies that they are accustomed to.

"with my set of friends, very liberal, upbringing, they consumed the media very liberal. So step by step I was introduced to these concepts of the various aspects of climate change... <....> I see the way people consume media and what they listen to who they listen to, forms a very big part of what they believe in, because they will move around in their echo chambers, in their bubbles, and will completely discard points which will brought up by the opposite party. " – Respondent no. 3

The notion of echo chambers and PEB in modern industrialised societies, in which the respondents of this research lived, is particularly complex. With the developments of social media and the increasing amount of information that people in these societies are exposed to, the choices of information that people make are usually dependent on the notions that they already know. This applies especially well to actions that require a change in established habits and even thought processes, as is the case with environmental sustainability. It requires a change in established action and even causes discomfort, as it entails inhibiting oneself from certain behaviours. Therefore, it is easy for people to dismiss the social groups and information channels. This theory explains why people, who came into companies that practiced environmentally sustainable behaviour, adapted to their surroundings (both the company and the environmentally responsible colleagues that formed their social circle.

Influence of the country

In the sample, studied in this research, the effect on environmental sustainability, made by the country was the largest of all factors. The first is the physical surroundings that people experience on an individual level. It had one of the biggest impacts on the environmental habit formation of the respondents. Second is the cultural differences that are an integral part of environmental agenda implementation and the third is the development of the country, which affects both policy making and company behaviour.

The first effect affects individuals. 7 of the respondents in this research were working in western European countries, after coming from less environmentally aware regions and had changed their habits by the time of the interviews. Most of them became more interested in environmental issues after settling in their new countries. The fact that a country is adapted to facilitate environmentally friendly behaviour allowed them to easily adapt to exhibit more PEB.

"I moved from Brazil <...> to Denmark, which is one of the you know, most sustainable countries in the world. So it is a big difference because you see that most people are doing already their part and then you see that the government also give the support and make it easy. " – Respondent no. 5

The ease of access to recycling facilities, established bicycle lanes and other infrastructure that promotes the formation environmentally friendly behaviour and acts as an important incentive for those in that environment.

The second geographical effect concerns both the company and the individual level and is the cultural values of a given place. As a general rule, European countries have much deeper and more thoroughly established notions about environmental awareness that are lacking in other countries. According to the sustainability advisor respondent no. 3:

"(compared to the North American and Asian ones) European consortium is much more advanced when it comes to embedding sustainability. You can use any industry as a benchmark, the retail industry or whatever, because they are a bit more conscious".

The differences between the North American and the European cultural mentality was evident in other interviews as well. When discussing introducing environmental initiatives to oil and gas company executives in the North American market, respondent no. 2 shared a story that captures the sentiment of North American industry executives:

"Alberta government had this initiatives for <...> projects that discuss more environmentally friendly technologies. I introduced them to one of the potential clients and I said: "so we could talk about, you know, the damage that is done in the oil and gas field in this area, and we could brainstorm some ways some ways have to make it better"; and the guy just got pissed off. He's like: "I don't even want to talk about it. We continue to suffer from those liberals who want to make our life miserable and make us pay more"".

Respondent no. 7 recalled the election of Trump as the president of the United States and the differences of reaction between the North American and British branches of the same oil and gas company:

"when Trump was elected, I know lots of people in the company (talking about the USA branch) were actually happy because they said: "Oh, he's going to have less pressure on

the industry". And in my mind, that's horrible. So that's not what we want. We want the opposite."

The same applies to personal experiences in the workplace. The respondent in the Silicon Valley conglomerate had experience working both for the Irish and American branches of the company and recalled the differences in employee viewpoint of parking. The Irish branch was based in the city center and people used bicycles and public transport to reach the office and the management provided incentives for this. Whereas the USA branch was said to lose workers if they were not allocated a parking spot near the office and the respondent would frequently be the only person on a 70 seat bus that was set up to bring people to and from work to residential areas. Initiatives that were intended to help ease congestion and be more sustainable was not effective, because of the regional mentality.

Finally, a group of countries could not be defined as culturally environmentally irresponsible, however experienced other issues in PEB implementation. In certain cases their policy and implementation and cultural acceptance may be higher than in Europe. For example, India has banned the use of single use plastic bags, as well, as single use plastic packaging in 2007. Whereas in the European Union legislation, it is forbidden to sell certain products without protective plastic. The issue with prevalent use of plastic in the EU was raised by several of the respondents, living in Western Europe. However, at the same time, there were more issues with manufacturing company behaviour. As respondent. No. 3, who worked for a Swiss chemical industry conglomerate explained, when discussing their company's plastic production plants in Asia:

"There was this entire business line, which was supplying products for the plastics industry.

And well, we knew that of course, everyone knew that they were, you know, adding to the problem of plastics like you were basically helping the plastics industry make more money.

<...> So then there were times when the leaders of that business would try to make a case for their product line with complete disregard to what it was doing for the environment

and the headquarters kept postponing the closure of the plant, because it added to the bottom line."

Even though this was an economically based decision, it also shows the construal level theory in effect. As the possible environmental implications of the decisions are physically distant, the management agrees to undermine its own established values, as the monetary gains provided by the decisions are felt directly.

In other cases, it is important to understand that the companies need to address region and industry specific issues, before introducing PEB. One of the tools that companies use to distinguish these issues is the SASB sustainability matrix. It is a tool that helps companies identify the main challenges in their industry. The company is responsible not only for making their product, but they are sometimes the biggest employer of a certain region. In other cases, other standards may be lacking more than environmental awareness. The company then needs to take care of these issues first.

"The conversation starts from different starting points, because culturally people are less stringent with certain safety measures and you cannot have somebody operating critical equipment unsafely. <...> So you cannot start telling them: "Oh, the environment is this and that..." You need to start from the basics in certain areas." – Respondent no. 7

Reasons behind environmentally unsustainable behaviour

As it was established in the theoretical overview and it became evident during the interviews - the economical aspect was the most important factor among all actors, when determining environmentally unsustainable behaviour. On an individual level, convenience also played an important factor.

On a national level, certain governments were relying on large corporations for their economies. Because of this, they were not willing to take strict action towards management of emissions, or waste. If something is economically beneficial, action will rarely be taken, no matter how damaging the company's operation is to the environment, or even to the communities in

these countries. A respondent from India, who worked in the law department for a chemical manufacturing company, shared the experience in her country. When discussing the pollution levels of the country's largest river Ganges. According to the nation's statistics bureau, around 10 million people contract skin, or respiratory diseases because of the pollution in the river. No action was taken until the Taj Mahal – the most visited tourist attraction in the country was becoming yellow. This was caused by the fumes from the chemicals in the river. However, this was done not because of economic reasons and to preserve the wellbeing of the tourist attraction, not because of concern for the environment.

"The fact that yeah, it's all capitalism at the end of the day for these bigger companies and these bigger industries. So for them, it has to come from government for them. I don't know how much awareness can help. Money speaks." – Respondent no. 6

A manager for an oil company shared another example about the company's production sites in Azerbaijan:

"Azerbaijan, where our company is one of the top employers in the country. And anything that has to do with oil has a huge impact on the country's economy. Maybe because of that, locally, production for them is maybe more important than the environmental agenda. <...> the entire country's economy depends on the production, then that's their priority."

Because of their importance in the country's economy, the companies have more power to continue taking unregulated action, until the negative effects they cause create more economic harm than they create through the production of goods.

On the business level, even in the case of environmentally committed companies, they will not sacrifice economic gain purely for environmental purposes. As respondent no. 7 explained the company's reluctance to transfer to environmentally sustainable energy production:

"We had quite a big wind business and then we entered solar but because. It became a manufacturing business with China producing everything, it just became completely uneconomical. So, we exited that business."

Finally, on a personal level, the people in this survey, despite their environmental sustainability inclinations, were not ready to do actions that are beneficial to the environment, while being detrimental economically. As respondent no. 3 explained:

"I have an option of buying the normal polystyrene ones, or I can buy a biodegradable plastic one. Now the biodegradable plastic cups are really very expensive if I compare it with the polystyrene ones that I get. So that's a choice that I have to make."

Other respondents also included phrases as: "as long as it's not cost prohibitive" (Respondent no. 2). Even if they were willing to make other sacrifices to be environmentally sustainable, economical choices still prevail.

Implementation of PEB also requires a change in habits and sometimes sacrificing personal convenience. In a work setting a great example was given by respondent no. 9 and company catering. It was decided by the management of the company that 3 days a week the only choices of food were plant based. Before this change, people had different options of the type of food they desired and the change was met with a negative reaction.

"the company chose to push it and I could say in a few months there was no one complaining anymore. Maybe it was forced, but people managed to adapt and understood that it was for the better purpose".

This example shows a successful implementation of policy changes to established behaviours and the importance of introducing certain environmental policies through law.

Importance of policy

The importance of strict policy implementation is necessary not only within companies but should be implemented nationally as well. There are instances, when, policy limits, what the

company can achieve in certain areas. As with the case of globally publicised food waste in Silicon Valley companies. Respondent no. 1, who works in one of these companies explained:

"...because policies are lacking, the food that was not consumed throughout the day cannot be donated to say, the homeless, or people who, you know, have financial trouble. That simply can't be done because it would cost too much to create a process to make sure the food is not poisoned, to package it correctly and actually to be able to give that food to someone."

As mentioned in the previous chapter, however, the main issue with policy is that companies abuse lack of laws by executing environmentally unsustainable behaviour for making a profit. Multiple respondents agreed, that it is almost impossible to assure that a company will execute PEB, if there is no need to by law. That is particularly true in countries, where culturally environmental awareness is less prevalent. As I already established, economic incentives and penalties are sometimes the only way to control the actions of certain companies.

"That is necessary. If companies, you know, like that other example about the oil and gas company that I gave you - the guys are afraid of financial penalties. So they will invest in more environmentally friendly options because they don't want to pay loads and loads of money, if an accident happens." – Respondent no. 2

As the issue of climate change is becoming more critical, the only way to achieve real changes are through harsh policies. In the manufacturing field, following procedures is part of the process and is easily implemented. Even if a company decides to implement certain behaviors in certain parts of its operation, as it appeared in the interviews, those behaviors are site specific and will usually not exceed what is necessary by law. That is why strict political action is the only way to achieve change.

Conclusion

With this research I identified the main reasons that influence environmental behaviour on an individual level, the business sector and policy creation. Although actors on all three of these levels interact with each other, companies had the highest impact on both the economy of countries, thus influencing policy decisions and on their employees, by implementing in office strategies, that influenced personal behaviour. In the company setting, the effect of management behaviour was accentuated, as the defining characteristic, of predicting employee environmental actions. A clear difference was observed between cultural traits, relating to the environment between European and non-European enterprises. Finally, factors, influencing PEB formation were identified.

Why do environmentally conscious people choose to work in unsustainable industries?

People in this research justified working in an unsustainable field because these industries have become prominent in implementing rapid environmental change, particularly in the office. Changing management and the approach has put these companies at the forefront of PEB implementation. The employees of these companies feel that their company is making steps to diminish the previously high environmental impact, as the companies have usually made a promise and already taken steps to become carbon neutral in the coming decades. The policies that the companies implemented in the workplace are particularly extensive and people feel they are making their part and the diminishing their effect immediate effect justifies the effect that their company's manufacturing makes on the environment. In certain cases, as the toy industry company, it seems that the management are making concrete companywide changes, that encompass all aspects of environmental sustainability. However, in other cases, environmental changes were only implemented in the office setting, while maintaining unsustainable practices in other areas. However, the respondents of this research also understand that due to the size and importance to the economies, that the companies contribute to, it is important to implement other policies first, before introducing stricter environmental action.

Factors, which influenced pro-environmental behaviour formation

In the case of the respondents of the research, the measures implemented in the workplace, in addition to environmentally conscious social circles, that they developed at work, were the key factor, determining pro-environmental behaviour in their personal life. This proved the theoretically proposed correlation between implementation of PEB in the workplace and personal life. The other factor, that most determined pro-environmental behaviour formation was the country of residence and the infrastructure and social norms, regarding the environment that were established there.

What factors limit pro-environmental behaviour formation

The main limiting factor in all levels of environmental sustainability were economics. Even environmentally aware individuals are not prepared to engage in PEB, if it is detrimental to them financially. Similarly, environmental impact is overlooked both by companies and policy makers, if certain actions are economically profitable. According to the findings of this research, the only possible solution to guarantee successful PEB implementation on all levels is to introduce it through mandated policy.

Other relevant findings

Another important finding of the study was the difference of cultural acceptance of environmental sustainability behaviour between Europe and in particular North America. This change was evident by the viewpoint of management and even other workers in the company. While those, operating in Europe were promoting a systemic change and the implementation of more stringent environmental policies, those in North America, were celebrating the relaxed laws that were being implemented by the president of USA. Similar issues only expressed in a different way were apparent in other countries around the world. Instead of not accepting new policies, certain countries were too dependent economically to implement more stringent environmental regulations. The same dilemma applied to the companies, discussed in this thesis.

Limitations and recommendations for further research

The first and most obvious limitation of this research is the small sample size. This was the case due to sensitivity of the subject matter and difficulty of reaching the selected target audience. In addition to this, the makeup of the sample was extremely diverse and was intended to gain a wide range of information from different sectors and different nationalities. Because of this, none of them were researched thoroughly. As it was intended to be used as the starting point for further research in the field, diversity of opinions was deemed more important than homogeneousness of the sample. Further research should include researching specifics of the country and each industry individually.

Additionally, the selected sample did not include people, over 35 years old. However, after conducting the interviews, it became apparent that age is a factor of difficulty in implementing environmental policies. Future research should diversify the age group and find the differences in their adoption of environmental policies.

I also believe the research did not sufficiently explain all facets of behaviour formation outside of the workplace. The factors that influence pro-environmental behaviour formation and the biases that are entailed in it in the age of information oversaturation is an excellent proposition for further research.

Finally, this research focused mainly on the impact the business sector had on individual behaviour. However, according to the respondents, policy is the most important part of sustainability, as it affects both the companies and individuals.

An interesting research subject would be to track effect of cultural differences between European and North American societies, which was an important part of this study. As the findings of this concept were speculative, it would be interesting to track the existence of this phenomenon in a quantitative manned.

The end goal of this research is to help create concrete policies that would ease the implementation of pro environmental behaviour at a policy level, a concrete action plan based on the findings of specific cases, should be developed.

Appendix no. 1

Interview guide

Thank you very much for agreeing to participate in my research. studying the outlook and actions that people, working at large corporations take, as do you, regarding environmental sustainability. I just wanted to make sure, if it is ok with you, and you agree, if this talk is will be recorded and later transcribed? None of the information that you will show your name, or the name of companies that you may name as part of the interview. Finally, I kindly invite you to share your thoughts and not be cautious about concrete facts, as I am interested specifically in your opinion about the subject. I think this is all, do you have any questions for me?

Let's begin.

- 1. What are your personal views on climate change?
- 2. When did you first get interested in the issues of the environment? What were the reasons for the concern?
- 3. When you think of your everyday life, how would you describe your own environmental impact?
- 4. Are there any initiatives that you contribute to, or take part in that are engaged with the betterment of the environment?
- 5. What are the factors, that stop you from doing other sustainability related actions?
- 6. Do you believe that sustainable behavior is a choice, or should it be implemented through policy? Both at national and company level.
- 7. Who, in your opinion, has the greatest impact on the environment? Individuals/companies/policy makers?
- 8. What field does the company, you are working at, operate in?
- 9. How long have you worked for this company?
- 10. What are your aspirations within the company, or the field you are working in?
- 11. What were the main factors that influenced your choice to get into this field/company?
- 12. How would you describe the effects that your company makes on the environment?
- 13. Do you believe the company's shareholders/management are concerned about the company's impact on the environment? Specifically?
- 14. Are there other environmental, or social issues that the company must deal with?
- 15. Do you feel that your personal views on environmental sustainability have changed during the course of working in this company?

- 16. Has it happened that your opinion, on what should be done in terms of the environment clashed with that of the management of your company? Did you express your feelings about the issue to the management? If yes, how did they handle it?
- 17. Have there been situations, where the company was involved in, at least in your opinion, detrimental behavior sustainability wise, to ensure a higher profit margin?
- 18. What was the reprocutions of this behavior? (the Public and from those, within the company?
- 19. Imagine you are having unlimited power within your company, what would you say are the most important changes to implement?
- 20. Are there any initiatives for change by employees of the company? How do you feel about those?
- 21. In general, what do you feel are the most important actions that individuals should take part in, to reduce their impact on the environment? Why don't you think do it?
- 22. How about people in your private circle (Friends/family)? What is their outlook on environmental sustainability? Why do you think it is this way (if the views are negative).
- 23. How should environmental policy be implemented, both in companies and nationally?

Thank you very much for your insights, it has been a very interesting conversation and it has thoroughly helped me. I will keep you updated on the progression of my thesis. Take care.

Appendix no. 2

Table of respondents

Respondent no.	Nationality	Sector	(current) Place of residence	Age
1	Lithuanian	Technologies	San Francisco	28
2	Canadian	Oil and Gas	Edmonton	34
3	Indian	Chemical	London/New	29
4	D :1:	manufacturing	Delhi	27
4	Brazilian	Oil and Gas	Copenhagen	27
5	Brazilian	Toy manufacturing	Denmark	28
6	Indian	Oil and Gas	Switzerland	30
7	Greek	Oil and Gas	London	35
8	Venezuelan	Cosmetics	Rotterdam	28
9	Lithuanian	Construction	Copenhagen	29
10	Romanian	Oil and Gas	Rotterdam	31

References

Baldwin, R., Cave, M., & Lodge, M. (2012). Understanding regulation: theory, strategy, and practice. Oxford University Press on Demand.

Becker, L. J. (1978). Joint effect of feedback and goal setting on performance: A field study of residential energy conservation. Journal of Applied Psychology, 63(4), 428–433. https://doi.org/10.1037/0021-9010.63.4.428

Bell J. 2014. Doing your research project: a guide for first-time researchers. Berkshire: McGraw-Hill Education.

Blok, V., Wesselink, R., Studynka, O., & Kemp, R. (2015). Encouraging sustainability in the workplace: a survey on the pro-environmental behaviour of university employees. Journal of cleaner production, 106, 55-67.

Brochet, F., Loumioti, M., & Serafeim, G. (2012). Short-termism, investor clientele, and firm risk. Boston, MA: Harvard Business School.

Clark, C. F., Kotchen, M. J., & Moore, M. R. (2003). Internal and external influences on proenvironmental behavior: Participation in a green electricity program. *Journal of environmental psychology*, *23*(3), 237-246.

Cook, J. et al, (2016), Consensus on consensus: a synthesis of consensus estimates on human-caused global warming, Environmental Research Letters Vol. 11 No. 4; DOI:10.1088/1748-9326/11/4/048002

Coulter, C., Whan, E., Malmqvist, T. (2019) The 2019 *GlobeScan / SustainAbility Leaders Survey*Delmas, M., & Toffel, M. W. (2004). Stakeholders and environmental management practices: an institutional framework. *Business strategy and the Environment*, 13(4), 209-222.

DellaVigna, S. (2009). Psychology and economics: Evidence from the field. *Journal of Economic literature*, 47(2), 315-72.

Dryzek, J. S., Norgaard, R. B., & Schlosberg, D. (2011). Climate change and society: approaches and responses. *The Oxford handbook of climate change and society*, 3-17.

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. Management Science, 60(11), 2835-2857.

Engels, A., Hüther, O., Schäfer, M., & Held, H. (2013). Public climate-change skepticism, energy preferences and political participation. Global environmental change, 23(5), 1018-1027.

Feldman, S. & Lavelle, M. (2020); Donald Trump's Record on Climate Change, Inside Climate news, Retrieved from: https://insideclimatenews.org/news/19122019/trump-climate-policy-record-rollback-fossil-energy-history-candidate-profile

Ferranti, P., Berry, E., & Jock, A. (2018). Encyclopedia of Food Security and Sustainability. Elsevier.

Gill, S. E., Handley, J. F., Ennos, A. R., & Pauleit, S. (2007). Adapting cities for climate change: the role of the green infrastructure. Built environment, 33(1), 115-133.

Gill, R. (2000). Discourse analysis. Qualitative researching with text, image and sound, 1, 172-190.

Given, L. M. (2008). The SAGE encyclopedia of qualitative research methods (Vols. 1-0). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781412963909

Groot, A. M. E., Bosch, P. R., Buijs, S., Jacobs, C. M. J., & Moors, E. J. (2015). Integration in urban climate adaptation: Lessons from Rotterdam on integration between scientific disciplines and integration between scientific and stakeholder knowledge. Building and Environment, 83, 177-188.

Griffin, P., & Heede, C. R. (2017). The carbon majors database. CDP carbon majors report 2017, 14.

- Hamel, J., Dufour, S., & Fortin, D. (1993). Qualitative Research Methods: Case study methods.

 Newbury Park, CA: SAGE Publications, Inc. doi: 10.4135/9781412983587
- Harland, P., Staats, H., & Wilke, H. A. (2007). Situational and personality factors as direct or personal norm mediated predictors of pro-environmental behavior: Questions derived from norm-activation theory. Basic and applied social psychology, 29(4), 323-334.
- Hill, C. W., Jones, G. R., & Schilling, M. A. (2014). *Strategic management: Theory & cases: An integrated approach*. Cengage Learning.
- Hoffman, A.J. (2007) Carbon Strategies: How Leading Companies Are Reducing Their Climate Change Footprint, University of Michigan Press
- IPCC, 2014: Summary for Policymakers. In: Climate Change 2014: The Physical Science Basis.

 Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Jensen, M. C., & Meckling, W. H. (1979). Theory of the firm: Managerial behavior, agency costs, and ownership structure. In Economics social institutions (pp. 163-231). Springer, Dordrecht.

Karwat, M. (1982). Political Values as Ideas of Social Needs. International Political Science Review / Revue Internationale De Science Politique, 3(2), 198-204. Retrieved June 8, 2020, from www.jstor.org/stable/1600772

King, N., & Horrocks, C. (2010). Interviews in qualitative research. Los Angeles, CA: SAGE.

Knill, C., & Liefferink, D. (2013). Environmental politics in the European Union: policy-making, implementation and patterns of multi-level governance. Manchester University Press.

Kramer, K., Ware, J. (2019) Counting the cost 2019: a year of climate breakdown; Christian Aid, Waterloo, London

Kollmuss A.; Agyeman J.; Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? Environ. Educ. Res., 8 (2002), pp. 239-260

Leana, C. R., Ahlbrandt, R. S., & Murrell, A. J. (1992). The effects of employee involvement programs on unionized workers' attitudes, perceptions, and preferences in decision making. Academy of Management Journal, 35(4), 861-873.

Lindlof, T. R., & Taylor, B. C. (2011). Sensemaking: Qualitative data analysis and interpretation. *Qualitative communication research methods*, *3*(1), 241-281.

Loewenstein, G., & Prelec, D. (1992). Anomalies in intertemporal choice: Evidence and an interpretation. *The Quarterly Journal of Economics*, *107*(2), 573-597.

Lomax, G., Lenton, T. M., Adeosun, A., & Workman, M. (2015). Investing in negative emissions. Nature Climate Change, 5(6), 498.

McGrath, C., Palmgren, P. J., & Liljedahl, M. (2019). Twelve tips for conducting qualitative research interviews. Medical teacher, 41(9), 1002-1006.

Milman, O. (2016). Trump to scrap NASA climate research in crackdown on 'politicized science.'. *The Guardian*, *23*(11).

Mesmer-Magnus, J. R., DeChurch, L. A., & Wax, A. (2012). Moving emotional labor beyond surface and deep acting: A discordance–congruence perspective. *Organizational Psychology Review*, *2*(1), 6-53.

Moser, S. C. (2010). Communicating climate change: history, challenges, process and future directions. Wiley Interdisciplinary Reviews: Climate Change, 1(1), 31-53.

Mudde, C., & Kaltwasser, C. R. (2017). *Populism: A very short introduction*. Oxford University Press.

- Nerem, R. S.; Beckley, B. D; Fasullo, J. T.; Hamlington B. D, Masters, D. and Mitchum. G. T.; Climate-change—driven accelerated sea-level rise detected in the altimeter era. *PNAS*, 2018
- Nordlund, A. M., & Garvill, J. (2002). Value structures behind proenvironmental behavior. Environment and Behavior, 34(6), 740–756. https://doi.org/10.1177/001391602237244
- Matsakis, L. (28, 09, 2019) Thousands of Tech Workers Join Global Climate Change Strike.

 Retrieved from www.wired.com

Paine, Lynn Sharp. Value Shift: Why Companies Must Merge Social and Financial Imperatives to Achieve Superior Performance. New York: McGraw-Hill, 2004.

Phillips, L. J., & Jørgensen, M. W. (2002). Discourse analysis as theory and method. London: Sage.

Rowley, J. (2002). Using case studies in research. Management research news.

Rogelj, J., Den Elzen, M., Höhne, N., Fransen, T., Fekete, H., Winkler, H., ... & Meinshausen, M. (2016). Paris Agreement climate proposals need a boost to keep warming well below 2 C. *Nature*, 534(7609), 631-639.

Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of organizational behavior*, 34(2), 176-194.

Semenza, J. C., Hall, D. E., Wilson, D. J., Bontempo, B. D., Sailor, D. J., & George, L. A. (2008). Public perception of climate change: voluntary mitigation and barriers to behavior change. *American journal of preventive medicine*, *35*(5), 479-487.

Spence, D. B. (2011). Corporate social responsibility in the oil and gas industry: The importance of reputational risk. *Chi.-Kent L. Rev.*, *86*, 59.

Tilman, D; Hill, J; Befort, BL (2011). Global food demand and the sustainable intensification of agriculture. *PNAS*, **108**(50) pp. 20260-64.

Thøgersen, J. (2004). A cognitive dissonance interpretation of consistencies and inconsistencies in environmentally responsible behavior. *Journal of Environmental Psychology*, *24*(1), 93–103. https://doi-org.eur.idm.oclc.org/10.1016/S0272-4944(03)00039-2

Volovici, V. (JUNE 26, 2019). Americans demand climate action (as long as it doesn't cost much),

Retrieved from www.reuters.com

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological review*, *117*(2), 440.

Wengraf, T. (2001). *Qualitative research interviewing: Biographic narrative and semi-structured methods*. Sage.

Whitmarsh, L. (2009). Behavioural responses to climate change: Asymmetry of intentions and impacts. *Journal of Environmental Psychology, 29*(1), 13-23. doi:10.1016/j.jenvp.2008.05.003

Wilby, R. L., & Dessai, S. (2010). Robust adaptation to climate change. Weather, 65(7), 180-185.

Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, B. DeAngelo, S. Doherty, K. Hayhoe, R. Horton, J.P. Kossin, P.C. Taylor, A.M. Waple, and C.P. Weaver, 2017: Executive summary.

Yin, R. K. (1994). Discovering the Future of the Case Study. Method in Evaluation Research. Evaluation Practice, 15(3), 283–290. https://doi.org/10.1177/109821409401500309

Overview: Weather, Global Warming and Climate Change. (2020). Retrieved May 19, 2020, from http://climate.nasa.gov/evidence/