

# **Too straight for a reusable bag?**

**A systematic literature review of  
masculinities in climate change**

Bachelor's thesis in Sociology

The Faculty of Social Science

University of Stavanger

May 2021

Forside  
Bacheloroppgave

**Studieprogram:** Sosiologi

**Opptaksår:** 2018

**Er oppgaven konfidensiell?** NEI:  JA:

**Kan oppgaven benyttes til undervisningsformål (anonymt)?** JA:  NEI:

**Forfattere**

<b>Studentnr:</b>	<b>Kandidatnr:</b>	<b>Navn:</b>
250821	4113	Klara Pettersson

**Oppgavens tittel:**

Too straight for a reusable bag?

A systematic literature review of masculinities in climate change

**Veileder:** Liv Sunnercrantz

## **Abstract**

The gender element in climate change has got more and more attention in research the last years. Most focus have been on women's vulnerability. Studies on men show that they are less concerned about climate change, less worried about the consequences of climate change and more sceptical to climate change compared to women. This bachelor's thesis is about masculinity's role in climate change. The purpose of this thesis is to develop an understanding on what leads men to their sceptic approaches. This is addressed by utilising theories on masculinity, and hegemonic masculinity in particular. Different forms of masculinity and their presence in climate change are explored through a systematic literature review. I will show different forms of hegemonic masculinity and how they are highly present in climate change. To explore this, I conducted a systematic literature review. My aim was to investigate how masculinity has been discussed in research articles on gender and climate change published between 2010-2020 in established scientific journals. I found how norms and ideals around masculinities outline men's approach to environmental issues. Hegemonic masculinity for instance establishes resistance to change and controls men's emotional range. As the ability to change and emotional work is highly relevant in climate change action these are two big factors in men's scepticism to climate change.

# Table of Contents

<b>Introduction</b> .....	<b>2</b>
<b>Disposition</b> .....	<b>3</b>
<b>Theoretical framework</b> .....	<b>4</b>
<b>Raewyn Connell (1944- ) Hegemonic Masculinity</b> .....	<b>4</b>
<b>Critique against the concept of hegemonic masculinity</b> .....	<b>8</b>
<b>Michael S. Kimmel (1951- ) American and British Masculinities in history</b> .....	<b>9</b>
<b>Method</b> .....	<b>13</b>
<b>Empirical findings and analysis</b> .....	<b>16</b>
<b>Masculinities of industrial modernisation</b> .....	<b>16</b>
<b>Petro-masculinity</b> .....	<b>19</b>
<b>Masculinities of ecological modernisation</b> .....	<b>20</b>
<b>Gender bending, gender conforming and homophobia</b> .....	<b>21</b>
<b>Conclusion</b> .....	<b>24</b>
<b>Literature</b> .....	<b>27</b>
<b>Appendix</b> .....	<b>30</b>

## Introduction

Men less likely to recycle because they are worried people will think they're gay, study claims (Weston, 2019).

I came across this *Independent* article when taking a course at University of Stavanger's department of gender studies. Since then, it has been hard to unsee the fact that approaches to climate change are gendered. In this study I aim to explore what role masculinity has in climate change. I want to display in what ways masculinity can operate limiting for climate change actions. Studies in this area are highly relevant at this time since climate change is an urgent global dilemma, as Daggett cites the *Planet Politics Manifesto*, "the planet is telling us that there are limits to human freedom; there are freedoms and political choices we can no longer have" (Daggett, 2018, p. 26).

The combination of climate change and the patriarchy we are living in makes studies in masculine environmental behaviour highly relevant. The patriarchy, e.g., system of male dominance and female subordination, position mainly men as our world's leaders. Powerful men take big decisions for our future, a future that is constantly changing and this in high speed. One of the things Connell declares about hegemonic masculinity is that "there is a clear resistance to change" (Connell, 2005, p. 178). Other literature shows that traditional forms of masculinity limit the potentiality for men to change, and to adopt to environmentalism (Milnes & Haney, 2017, p. 2). Environmentalism is explained as grounded in "caring for the planet and those harmed by environmental problems (Swim, Gillis & Hamaty, 2019, p. 2). At a macro level, it is observed a type of smugness among men toward the environment in the cross-national contrasts in carbon emissions (Milnes & Haney, 2017, p. 5). Are men making decisions at macro-level that would have been made differently without the norms of masculinity? At micro-level, I ask the same question, if men refuse to recycle to keep up the image of a macho man, what other choices is being made in advantage for the macho image rather than the environment?

The purpose of this thesis is to examine masculinity's role in climate change. My research question is: "How has masculinity affected climate change in the global north the last 10 years?". I answer this question by investigating how masculinity has been discussed in research articles on gender and climate change published between 2010-2020 in established scientific journals. To do this, I conducted a systematic literature review. I did this to get a clear overview of research on this topic. I found high quality and cogent theories and research related to masculinity in climate change.

### **Disposition**

In this chapter I have discussed the theme for this thesis and presented my research question. Henceforth I will explain the theoretical framework. I chose to use theories from two of the most established sociologists on gender, Raewyn Connell's and Michael S. Kimmel. Later, I will introduce my selected research methods and discuss methodological considerations. Afterwards I start to convey the most significant empirical findings in a table, to eventually scrutinize them continuously against the theoretical framework. Finally, I will end this thesis with a discussion on my conclusions on masculinity's role in climate change.

## **Theoretical framework**

In this chapter I will present the main theoretical perspectives used in the analysis of this literature review. The theme of this bachelor thesis is masculinity, stereotypes of men, and how they operate differently in climate change, both over time and between different stereotypes. As Connell I use masculinity in its plural form “masculinities”. These male stereotypes, or masculinities work as parts of a bigger structure, that we know as gender. To analyse this, I use social constructionism- and post structuralism- theories that acknowledge gender as socially constructed. From these perspectives gender exists as something not naturally established but constructed by the society and thereby humanly created, changeable, and destructible. I include theories on masculinities in history by Kimmel. I regard the climate crisis as one of the biggest events of our time, that will be looked back on as an important historical matter, Kimmel’s historical view is therefore highly relevant since it explores men’s roles in historical events.

### **Raewyn Connell (1944- ) *Hegemonic Masculinity***

I will start this section with one of the most outstanding researchers on gender. Raewyn Connell, earlier Robert W. Connell, who together with other colleagues created the study field of gender. Connell is an Australian sociologist. Her book *Masculinities* (1995, 2005) is one of the most acknowledged in this field of research. She proposes the concept of “hegemonic masculinity”, that have been exceptionally important for the field and brought much discussion. The concept has been particularly important to connect masculinity research to studies on feminism. Connell define hegemonic masculinity as “the masculinity that occupies the hegemonic position in a given pattern of gender relations, a position always contestable” (Connell, 2005, p. 76). The concept is based on the belief that there is a hegemonic masculinity that other “masculinities” are ranked under, by that means she also proposes masculinity in its plural form, masculinities. Connell argues how masculinity is not an isolated matter but one component in a larger structure. This structure is the one we know as gender. Because of masculinity’s form as a part of something bigger there is a call for studies of the bigger structure and how different types of masculinities take place in it.

First, let’s dissect the term “masculinity”. The modern understanding of the word presumes that the sort of person one is determines the demeanour (Connell, 2005, p. 67). The

concept of masculinity also precludes the idea of individual difference and personal agency. At the same time, it has also a relational nature. There is no “masculinity” without “femininity” (Connell, 2005, p. 68). Many essentialists have tried to define masculinity with terms like risk-taking, responsibility, irresponsibility, aggression, and so further. The problem is, there is no consistency. Positivists claims the very simplified definition, that masculinity is what men really are. But, as modern epistemology remarks, descriptions do not exist without a standpoint. Standpoint theory declares how authority is based on individual’s knowledge and their perspectives, and those are shaped by the individual’s own social and political experiences. There is no such thing as an “objective” view. The positivist definitions appear neutral and objective but in fact they are based on beliefs about gender. Also, to define what men and women do depends on the idea that they can be categorized in these specific groups. And, to say that masculinity is “what men empirically are” is actually to contradict the use of the terms “masculine” and “feminine”, that we usually use for all genders. These terms exist outside an understanding where sex and genders fit into categories. “Masculine” and “feminine” helps us describe how men diverge among men, and women vary among women, in the context of gender (Connell, 2005, p. 69). Normative explanations admit the variations and puts masculinity as “what men should be”. This understanding recognizes that men meet the norm to various extents. One thing Connell points out here is that there are probably very few men that practice a hegemonic masculinity pattern to its full extent, yet almost all men gain from the patriarchal share-out. The semiotic way to approach masculinity is through a combination of symbolic diversities, where masculine and feminine are contrasts (Connell, 2005, p. 70, 79).

According to Connell the focal point should be on the processes and relationships where men and women perform gendered lives, because that is where masculinity exist, as a place in gender relations. Gender orders social practices, its incessantly referring to bodies and bodies functions, but social practice is not dwindled to the body (Connell, 2005, p. 71). One important thing that Connell denotes is that institutions are not just metaphorically, but substantively gendered. One example is the masculine state. This is not about how male top-leaders have imprinted the institutions, it is about something much bigger. To say that the state is substantively male is to refer to the states processes whose structure is in relation to the reproductive field. There is a gendered construct for recruitment, promotion, internal division of labour, control systems, policymaking, practical routines and how to



mobilize pleasure and consent. This makes men's vast majority of top office positions indisputable. The connection to the reproductive field is merely social, not biological, which gets obvious when challenged. One example is the several states that have questioned "gays in the military", where critiques argued that preferences in bed has little to do with the ability to kill. The admirals and generals had various phony responds, but the unacknowledged reason was the cultural concern of a specific definition of masculinity in preserving the frail unity of modern military (Connell, 2005, p. 73).

Connell argues that at least a tripartite model for the structure of gender is needed. The model should differentiate relations of power, production and cathexis (emotional attachment). European and American modern world's most fundamental axis of power is the dominance men have over subordinated women, the patriarchy, as Women's Liberation named the structure. The second part of model, production relations, target the gendered division of labour. Focus should be on the distribution of the tasks as well as the economic fallouts, and the outcome men have of the uneven allocation of social labour. Connell also points out the connection between capitalism and patriarchy. As the capitalist economy functioning through a gender segregation, it works unavoidably as a gendered accumulation process. The third part of the model cover the investment of emotional energy. Sexual desire is usually ignored in social theory since it is identified as purely natural. Here Connell uses Freuds terms about desire to make its gendered character evident, desire is "the emotional energy being attached to an object" (Connell, 2005, p. 74).

Connell also frames how gender interacts with other structures of social practice, as race and class. She also adds how it continuously interacts with nationality or position in the world system (Connell, 2005, p. 75). As the understanding for genders interplay with race and class is getting bigger, there is also more awareness of masculinity in its plural form, masculinities. Masculinity comes in different forms by different types of humans. To acknowledge masculinities' plural form is just the first step, the second mission is to investigate the relations between them. And additional is the need for dissecting the system of gender relations operating in class- and race structures (Connell, 2005, p. 76). Connell refers to "hegemony" as the cultural system where a group demand and maintain a dominant position in social life. To that end, hegemonic masculinity can be explained as the form of gender practice that embodies the at present obtained way of legitimating

patriarchy, that holds the dominant position for men and subordinates women. However, the most evident agents of hegemonic masculinity do not have to be people with the most power. Often it is celebrities or characters in movies that reinforce the structure (Connell, 2005, p. 77).

Here, I want to present an example from popular culture. The classic Disney movies, such as “The Little Mermaid”, “Cinderella” and “The Sleeping Beauty”, manifests clear examples of hegemonic masculinity structures. The classic Disney plot is based on a story where a girl gets in trouble and a man saves her. Male stereotypes in Disney movies are clearly defined. To be brave, strong and good looking is almost always the top characteristics for the male hero. A Disney man also need to have power and wealth to get the girl, this refers directly to what society values in masculinity. Men’s power in the movies lead them to always be the hero and save the girl. This affirms their dominance and their masculinity. Many times, the men use physical power which interacts with violence of hegemonic masculinity, which I will discuss later. The physical power is eulogized. The villain of the stories has often queer characteristics, this also plays along with our society’s exclusion of queer genders. The lack of emotions is also a fact for male characters in these movies, the only accepted feeling for men seems to be rage. Rarely is there a man who cries or is scared. By contrast, is the women, who openly show all the feelings possible. Moreover, the males make all the decisions, it is very unusual that a Disney prince asks the princess “Will you marry me?”. This is also a way Disney displays masculinity and men’s dominance over women. These stereotypes are problematic for all genders, since they are very limiting. The movies feed young boys and girls with this structure and teaches them to live by it. Movies, and many other popular medias, are for sure one component in hegemonic masculinity.

Connell emphasizes that hegemonic masculinity takes on the acknowledged strategy at all times, which is consistently changing. The fundament for the dominance of a specific masculinity disintegrates when the conditions for the advocacy of patriarchy modifies. New structures arise when different groups challenge old ways of establishing the structure. Hegemony is constantly changing (Connell, 2005, p. 77). In hegemonic masculinity there are different subordinations, the strongest is the dominance heterosexual men have over the homosexual men. It is not only the way homosexuality and gay identity is culturally stigmatized, but there is also a pattern of how straight men subordinates gay

men by outright material operations. These involve political and cultural ostracism, cultural abuse, legal violence, street violence, economic injustice and personal boycotts (Connell, 2005, p. 78). When gender is acknowledged as a social pattern it demands its existence as a product of history and consequently a producer of history (Connell, 2005, p. 81). The modifications have been customary to be seen as coming from outside gender, usually from technology or class dynamics. Yet gender relations are often the creator of change. A key point to this structural matter of men dominating women is that it irresistibly makes men an interest group concerned with defence, and women as an interest group concerned with change. Men benefit from patriarchy in many terms, for instance, honour, status and power. Not to mention their significantly material gains (Connell, 2005, p. 82). This major inequality with suspension of social resources is difficult to imagine without violence. The main violence is held and used by men. In domestic abuse cases the women have often accepted their abusers view of themselves as incompetent and helpless, despite their being physically able to look after themselves. Here Connell emphasises two important patterns. First, violence is often used to defend the abuser's dominant position. Second, violence develops into an essential topic in gender politics amidst men (Connell, 2005, p. 83). Violence is an inevitably part of domination, though it is also a measure of its weakness. A rigorously legitimated hierarchy would not have that need to intimidate (Connell, 2005, p. 84).

### **Critique against the concept of hegemonic masculinity**

Since Connell's concept of hegemonic masculinity has brought exceptional attention, it has also got critique for various reasons. The concept has been discussed as indistinct, too structural, too abstract and for reifying normative masculinity positions. It is questioned if dominant masculinities are inevitably always related to legitimizing patriarchal gender relations (Christensen & Jensen, 2014, p. 61). The concept has also been critiqued for how the theorisation of masculinity can limit how researchers are able to comprehend the experiences and meanings of men's lives. The concept can be problematic because its relative narrow understanding of men's power. There is also critique for risking to overdetermine men's lives as merely following a pattern (Moller, 2007, p. 274).

**Michael S. Kimmel (1951- ) *The History of American and British Masculinities***

Kimmel is an American sociologist, specializing in men and masculinities. Many would say he is of the most outstanding in the field, and he is very determined in his work to engage men to support gender equality. I will use his work *The History of Men: Essays on the History of American and British Masculinities* to get an historical view on my analysis. It explores the evolution of American and British masculinities, investigates how the concept of masculinity has been formed by a range of historical events, and vice versa, how masculinity and the beliefs about it have constructed these historical events.

Kimmel proclaim how men are not present in history, similarly to how women recently have been claiming their exclusion in history books. Generally speaking, men are present in all these books, but Kimmel declare men's display only as present when their achieved something. "Books about men are not about men as men." (Kimmel, 2005, p. 3). There is no discussion of men, they do not examine how norms and stereotypes construct men's lives, their gendered selves got no place in the history. What history book have described how the historical events effected the men involved? Kimmel emphasizes how it is necessary to understand history to be able to understand masculinity (Kimmel, 2005, p. 3). At the same time, history is not to be completely understood without a comprehension of men's everlasting seek for manliness in all those historical events. This view will give a new approach to the events that created the world we live in, and the men who took part in them. Kimmel gives a range of examples of historic men pursuing masculinity, for instance;

Composer Charles Ives insisted that Impressionistic music was "sissy" and that he wanted to use traditional tough guy sounds to build a more popular and virile music. Architect Louis Sullivan, the inventor of the skyscraper, described his ambition to create "masculine forms" – strong, solid, tall, commanding respect (Kimmel, 2005, p. 4).

For most men, gender, is an undiscovered phenomenon. As if the field only concerned women, in the universities, courses on gender are attended mostly by women. As Kimmel cites the Chinese proverb, "the fish are the last to discover the ocean" (Kimmel, 2005, p. 5). Privilege is usually invisible for the privileged, and so are the processes involved

(Kimmel, 2005, p. 5). This invisibility allows the producing of inequality to proceed. Power is an unavoidable factor when speaking about the historical manufacture of gender. Most social scientists have even not been able to see power because its compulsory place in historical development of masculinity. However, social theory and social science have done the impossible; not considering power when investigating masculinity. Kimmel highlights how masculinities are built in a field of power. Firstly, the power men have over women. Secondly, the power some men have over other men (Kimmel, 2005, p. 6). The different access to power men have over other men is dependent on social factors as class, race, ethnicity or sexual orientation. The components that built hegemonic masculinity are sexism, racism and homophobia. Both men and women are evaluated against the white, middle-class, heterosexual man. Since this is the normative standard, everybody's accomplishments and defeats are measured against it. Kimmel here quotes British anthropologist Maurice Bloch "It is precisely through the process of making a power situation appear as a fact in the nature of things that traditional authority works" (Kimmel, 2005, p. 7).

The end of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century was initiated with a range of significant changes, that disintegrated the traditional base of gender identity. The industrialization was happening with exceptional speed and the changes in scale and process of production was a fact. This brought a line of changes, and the hegemonic masculinity authorization was threatened. Women got more power over the institutions where children were socialized, such as the church, school and home. It was the women who taught boys how to be men. The academic social science was present to support men in their threatened masculinities. To return the public space as a men's space to be with other men it often included pushing the potential threats to its margins. Women was again marginalized, and middle-class white men restored their dominance over all other types of men. All other types of men were not manly in the legitimate way (Kimmel, 2005, p. 10). To cultivate some men's power over other men it is necessary to hold women back. Antifeminist attributes were required in the manufacturing of masculinity (Kimmel, 2005, p. 11).

At the same time as feminism had its inflation in the late 19<sup>th</sup> century, people were also made more aware of homosexuality. This initiated parent's fear of contributing to "making" their sons gay. The suggestions for solutions were present in magazines, literature, the advertising industry (that was getting bigger), and certainly in academic

social science. It was stated that certain attitudes, behaviours and values could reveal gender identity, and that parents should avoid the complication of “inversion”. Parents had to look for signs everywhere, in foods, play activities, fantasies and clothing (Kimmel, 2005, p. 12). Kimmel refers to American sociologist Talcott Parson that developed a theory of male aggression. Parson argues how the boy need to reject identification with his mother to obtain a “healthy” masculine identity, at the same time he unknowingly links “goodness” with femininity, hence the goal is to be a “bad boy”. More social scientists followed Parson, among others, Albert K. Cohen; “engaging in bad behaviour acquires the function of denying his femininity and therefore asserting his masculinity”. He explained this was the motivation for juvenile delinquents. The same was also observed for Nazis and other authoritarian personalities, hypermasculinity was used to mask unstable gender identities (Kimmel, 2005, p. 13).

Kimmel refer to American psychologist Robert Brannon who has defined four factors of the dominant traditional male sex role. A man should act according to these rules. The first one “no sissy stuff”, implicating that anything near feminine is dissuaded. The second rule, “be a big wheel”, explains how prosperity and social position are central, and that men require to be admired. He must also “be a sturdy oak”, which hints that he should ooze confidence, self-reliance and roughness. This for others to be able to rely on him. Lastly men are exhorted to “give ‘em hell”, to prove an aggressive, violent and bold aura. Kimmel present the cowboy as the perfect example of embodied ideal of American masculinity. The cowboy is ferocious and fearless, often to save the less manly locals. As soon as possible though, he needs to move on from the expectations of civilized life, away from clingy women and crying children. The cowboy has spotless ethics. His courage, fearlessness and acuirements are repeatedly tested in the world of men where he resides. His physical power and rational calculation are significant. He has mercy for people, but he builds no lasting emotional relationships (Kimmel, 2005, p. 94).

Kimmel also gives examples on how American political leaders show of their masculinity. Lyndon B. Johnson is said to be always haunted by the idea of not being manly enough for the position as America’s president, and constantly was comparing himself with John F. Kennedy. This even pushed Johnson to escalate the war in Vietnam. When he got critique, he often violated the opponent’s masculinity, suggesting he was very insecure of his own manhood (Kimmel, 2005, p. 102). As the awareness of the limitations of masculinity

worshiping in American politics grows, the macho politics is threatened (Kimmel, 2005, p. 103). When writing this, Kimmel was of course unaware of that America was just years away from having probably the most macho president of all time, Donald Trump. Trump, who's been throwing out sexist comments is a strong example of Americas macho politics.

Kimmel marks how it was women's movement who initiated critique of academic social science and gave light to gender when challenging it. This made hegemonic masculinity's position suddenly unstable. It is a political project; it aims to transform the hegemonic into a pluralistic set of alternatives and test the mechanisms that established hegemony. The project intends to dismantle masculinity as a singular that have been used against marginalized groups and reassemble masculinities as a set of potential identities of gender. "...each different, and all equal" (Kimmel, 2005, p. 15).

## Method

To find out what is already known about masculinity in climate change and how researchers have approached this topic before I chose to do a systematic literature review.

To do so I started to define keywords relevant to my topic. I tried different combination of keywords, and in the end, I decided to use; “masculinity”, “macho culture”, “machismo”, “unmanly”, combined with “climate change”, “global warming”, “climate crisis”, “eco-friendly”. I chose these keywords because they gave me the most relevant matches.

I limited my search to countries in the global north and research made the last ten years. I did this because I wanted to focus on this area of the world, that I imagined have a more similar approach to gender and climate change, than if I had collected research from all parts of the world. When I started reading, I understood that this area of research has been expanding the last years and still is at its thriving phase. I therefore wanted to target the last decade, to see what have happened in this relatively short period of time. I tried using different databases and chose to use “Oria” and “Scopus” to find relevant literature. I chose these two databases because of their reliability, easy access, and well-organized search alternatives. As Oria being the university library, it contains a very wide range of literature, and so does Scopus as the biggest abstract and citation database of peer-reviewed literature. The easy way to select articles that have been peer-reviewed in Oria is also an important reason why I chose it as one of my sources for literature.

The keywords and limitations chosen resulted in 18 matches in Scopus and 31 matches in Oria. In Oria there are now filtering for geographic limitations so of the 31 hits I had to manually select articles that fitted my selected geographic area. I also went through the results to sort irrelevant articles out. The irrelevant articles were deselected due to different reasons. Some studies did not fit my research question because they had another direction of topic, primarily a direct focus on women and femininity. There were also articles that got deselected because of its strong philosophic approach that did not give any actual facts that were usable for this work. Lastly as recommended by my thesis advisor I ran the journals through a Norwegian register for scientific publishing channels (“Register over vitenskapelige publiseringskanaler”). I chose to deselect articles published in channels that were not ranked in the register. I used articles published in journals that were ranked to 1 and 2, having in mind when reading that journals ranked as “2” are more acknowledged. I chose to do this to be sure of the literatures’ reliability and quality. I also searched for my



picked-out articles in Google Scholar to see the cited numbers, to know what place the articles have in the research area. The articles my searches resulted in had a cited count of 1- 71, stating that this area of research has not got much attention, yet. The literature of my chosen research topic is relatively limited. There would be strong reasons to do research with surveys and interviews. Though with the context of this assignment, with its time and economic limitations, I designate a literature study as the most fitting method. In my literature study I found many suggestions of future research and I will list some of them in the “gap”-section in table 1 and also discuss this further in subsequent chapters.

I decided to only use online published articles and not books because of stricter peer review process most articles have went through compared to books. I also chose article-only research due to their relative availability, I wanted to know what is out there to read about my topic from anywhere with easy access. Therefore, I also decided on only using English written articles. Additionally, I used relevant books and compendia from previous classes on gender to refresh my previous knowledge on the topic. I did some research on earlier students' assignments on gender to know what theories were often used. I also asked my thesis advisor about complementary “classics” to use on the theoretical framework of this thesis. I wanted to look at my research area from both micro- and macro perspective. Therefore, I intentionally selected literature that gave me the opportunity to do so. I think this is particularly important for my selected area, masculinity in climate change, since the explanations of my research questions is necessary at both levels to make positive changes in the future.

Since I wanted to get an overall overview on what have been said about my selected topic there were many reasons why I chose this exact method. I wanted to get a very clear picture on how this research area have been studied before. I aimed to track key information and themes and connect the similarities and differences between concepts and theories. I also intended to search for gaps in the research area. I decided on using a table to categorize the data and get a clear overall view. To be able to categorize I started with reading abstract and conclusion in every article, I skimmed through other sections to get a brief understanding. Afterwards I organized my articles based on author/year, focus/purpose, methods, context/sample, findings and gaps. This was an effective procedure to outline important themes, later it was convenient to dive into those and get a deeper understanding to track connections and detect dissimilarities. With my findings I

intended to answer my research questions. I was also very open for the possibility of this work to raise more questions than answers. Because of my selected method of a literature review and the use of other authors already existing material, I could rely on earlier researchers and did not need to search for ethical approval for my work. However, I was very aware of the importance of correct citing and was sure to carefully cite my references throughout my writing.

## **Empirical findings and analysis**

Here I will present my empirical findings, that I found through my searches in Oria and Scopus by the methods presented earlier. I consider it to be most suitable to discuss the empirical findings against the theoretical framework continuously as I present it, to give the reader the most satisfactory reading experience. As declared earlier my first step in analysing the articles was to organize them in a table. I did this to get a distinct overall view. This helped me to see the similarities and contrasts. The table, marked “Table 1”, is displayed in the appendix. I recommend the reader to go through the table briefly before continuing reading.

I found several interesting and valuable themes in my research. However, one of the most fundamental and striking discoveries I did in this work is about, paradoxically enough, the lack of research in the area. The literature on masculinity in climate change is very limited. Earlier research on gender and climate change has primarily focused on women’s vulnerabilities. The studies that were suitable for my topic are concentrated mainly in the north American countries. Of my eight selected articles, there is only two studies that was conducted outside that area. Fortunately, the field is growing. Two of my selected studies explores attitudes around the field of environmental-friendly transportation, and their themes could at first glance look a bit narrow for my research topic. Yet, I consider these attitudes about specific themes tell a lot about environmental behaviour at large. The other selected articles have a wider approach of gendered attitudes to climate change.

### **Masculinities of industrial modernisation**

Anshelm & Hultman (2014) examines climate sceptics in Sweden. They connect the sceptics’ arguments as linked to a specific masculinity, as both Connell and Kimmel they also acknowledge masculinities in plural. The masculinity of climate sceptics considers emerging from industrial modernisation, natural science and engineering rationality (Anshelm & Hultman, 2014, p. 85). A big problem with their research is that their data originates from published articles of climate sceptics. The sceptics involved are by that means an extremely homogeneous group, consisting of elderly men that have the access to publishing their thoughts in this kind of articles. Anshelm & Hultman do mention this dilemma and recognize that an analysis of more detailed and systematic ground is needed to explore these views quantitatively and theoretically (Anshelm & Hultman, 2014, 86).

That said, they did find some interesting patterns among the sceptics investigated. Most essentially, they find that climate sceptics fully deny climate change ability to cause anthropogenic consequences. The denials are built on references from a diversity of academic disciplines, establishing their reliance on positivistic science. The climate science is dismissed by the sceptics as science and politics so tangled up in each other that it is no longer possible to tell them apart (Anshelm & Hultman, 2014, p. 91). The most severe and frequently repeated criticism from the sceptics is about world welfare, it is suggested that the arrangements to fight climate change would reduce endeavours to fight AIDS, malaria, and starvation and decrease global commerce, which could lead to more suffering for the world's poor (Anshelm & Hultman, 2014, p. 90). This attitude interacts to some extent with Kimmel's illustration of the cowboy as hegemonic masculinity manifested. The cowboy wants to help the less masculine fellow creatures (Kimmel, 2005, p. 94), accordingly men with engineering and/or science backgrounds declare to have the mastery to care for the working class and nations in development (Anshelm & Hultman, 2014, p. 90). The sceptics Anshelm & Hultman examined were analysed to defend the rationality and positivistic scientific values that distinguish their working life (Anshelm & Hultman, 2014, p. 93). Their working life consisted of successful careers in academia or in the private sphere, with big trust in a market society and, importantly a suspicion of government organization. It is essential to understand how their masculinity is challenged by climate change, and not judge them as anti-science or anti-political (Anshelm & Hultman, 2014, p. 91).

As Kimmel discussed masculinity of American political leaders, Daggett analyse Donald Trump's mission to "Make America Great Again". Trump's widespread phrase is discussed as a tribute to the fantasy of the mid-20<sup>th</sup> century American life, when white men's domination of the households was unchallenged and standard (Daggett, 2018, p. 31). As Kimmel noted American presidents' fear of not being manly enough, Daggett cites *Authoritarian Personality*, successful men with authoritarian characteristics "show deep-seated fears of weakness" in themselves. And this weakness is deeply connected to fears of non-masculinity. Later she cites Erich Fromm, "the lust for power is not rooted in strength but in weakness ... It is the desperate attempt to gain secondary strength where genuine strength is lacking" (Daggett, 2018, p. 36).

What about men who have experiences of a natural disaster? Literature suggests that such experiences could have the potential to generate pro-environmental behaviour, when people connect local natural disasters to global environmental change. Milnes & Haney investigates residents of Calgary, Canada, that experienced a flood tragedy in June 2013 (Milnes & Haney, 2017, p.1). They find that male respondents have a 60 percent less likelihood of changing after a natural disaster than female respondents (Milnes & Haney, 2017, p, 15). This corresponds with what Connell stated of men's "clear resistance to change" (Connell, 2005, p. 178). A main point to the structure of patriarchy is that it naturally makes men an interest group concerned with defence, and women as an interest group concerned with change (Connell, 2005, p. 82). A reluctance was noted in connecting natural disaster experiences with environmental views (Milnes & Haney, 2017, p. 16). This could be connected to potential personal material loss as Calgary is a city economically dependent on fossil fuels and the tar sands. A bigger awareness of environmental problems could lead to loss of jobs if they were to stop or reduce oil production activity. This is similar to the examined men in Anshelm & Hultman (2014) that also had a, maybe unconscious, personal agenda when defending their arguments as rational and positivistic scientific, as the arguments could be linked to the men's past working life (Anshelm & Hultman, 2014, p. 93). In line with hegemonic masculinity none of the men expressed sadness about the disasters that had affected their town; but defensiveness was common (Milnes & Haney, 2017, p. 27).

One of the participants in Dockstader & Bell's study expressed the high emotional cost when committing to environmentalism, "I saw my stepdad growing up who was so focused on some of the environmental pieces that it actually made him unhappy". There is certainly a high emotional cost in climate change action, a cost that most men do not want to pay. This emotional work is also not in line with hegemonic masculinity, as earlier described the range of emotions are very limited. As Kimmel refers to Parson's theory of male aggression, who argues how boys need to reject identification with his mother to obtain a "healthy" masculine identity, the aim is to be a "bad boy". Identification with mothers could possibly be to show a range of emotions and to be caring, something that often is associated with climate change action (Kimmel, 2005, p. 13).

## **Petro-masculinity**

Daggett views climate denial in a toxic combination with racism and misogyny. Her article examines their relationship via the concept of petro-masculinity. As Anshelm & Hultman were briefly leading up to, petro-masculinity is a concept that put forward fossil fuels as of more importance than just profit. Fossil fuels have also an important part in shaping identities and is thereby a threat for post-carbon energy politics (Daggett, 2018, p. 25). Petro-masculinity is best understood as a type of “hypermasculinity” rather than a hegemonic masculinity. It emerges when men of hegemonic masculinity require to amplify or reenforce their traditional masculinity as a consequence of feeling threatened or inferior. Petro-masculinity is noted to not surely be the most dominant masculinity in the USA (Daggett, 2018, p. 33). Kimmel declared how hypermasculinity is used to mask unstable gender identities (Kimmel, 2005, p. 13).

Since the new imperialism of the 19<sup>th</sup> century fossil fuels in connected to a whole western lifestyle. White conservative men in America being the most forthright deniers of climate change, and also the most committed advocates for fossil fuel are no surprise (Daggett, 2018, p. 27-28). Fossil fuel strongly contributed to the building of our modern world. There is a gratitude living on for the possibilities they are giving. It is important to remember, during the industrialisation’s cause of harm to our planet, the industrialisation was also contributing to the abolition of slavery, raised literacy scope, gender equality and lowered poverty (Daggett, 2018, p. 30).

The Earth, constantly associated with femininity in Western phantasy, is an evident victim of fossil violence. If adopting Kate Manne’s logic about misogyny “the system that polices and enforces” the norms of patriarchal rule, it becomes easier to proclaim its existence. The traditional definition of misogyny, as an extreme individual belief, blinds us with perpetrator’s “true meanings” and intentions (Daggett, 2018, p. 43).

## **Masculinities of ecological modernisation**

The 90s brought a shift in hegemonic masculinity, from industrial modernity to eco-modern masculinity. The eco-modern man ought to be tough and unhesitating, but with adequate fragments of compassion and care (Anshelm & Hultman, 2014, p. 92). The eco-modern type of masculinity is, as well as the industrial modern, in line with Kimmel's description of the cowboy as ideal for the American man (Kimmel, 2005, p. 94).

One important point about masculinity that Dockstader & Bell make is the one about class. The discussion about class have got a relatively small space in the studies included in this thesis. Dockstader & Bell's study focus on a major biofuel company in the United States and investigates eco-modern masculinity in their advertising. The main themes of the advertisement studied were interpreted as masculinity, localism as energy security and green consumerism as sustainability (Dockstader & Bell, 2020, p. 649). Dockstader & Bell put eco-modern masculinity as an awakener for a specific class-based environmentalism. The eco-modern man is concerned about the environment and therefor view biofuels as the ethical choice (Dockstader & Bell, 2020, p. 643). Fossil fuels connotation to working-class masculinity creates a possibility for biofuels to fetch male middle-class aspirants that wants to distance themselves from working-class men. Eco-modern masculinity identifies with advanced technology and clean fuel. This which in turn symbolises personal virtue, health, equality, environmentalism, intelligence, and the entrepreneurial audacity needed to reduce contamination (Dockstader & Bell, 2020, p. 651). The ecomodernist ideal in modern masculinity could explain Swim and Geiger finds about the "alarmed" climate change opinion group, whereas when estimating the men, the positive masculine traits were highlighted simultaneously as the negative feminine traits were highlighted among women (Swim & Geiger, 2018, p. 452).

The advertisement theme "green consumerism as sustainability" is much established with the idea of voting with one's dollars. This concept of being able to reduce environmental destruction through conscious consumption is very approachable for Americans because of the strongly prevailing capitalist system (Dockstader & Bell, 2020, p. 654). Related to the capitalist system, Connell remarked how it works through a gendered sectioning of labour, and thereby also as a gendered accumulation process (Connell, 2005, p. 74). Not surprisingly the message of eco-modern masculinity is that capitalism only requires a few "sustainable" adjustments. Respondents in Dockstader & Bell's study remarked the

inequality of green consumerism, the possibility to vote with one's dollars is a question of wealth (Dockstader & Bell, 2020, p. 655).

Swim et. al. (2018) points out about class in a global perspective, how environmental problems are framed differently depending on prosperity. In economically wealthy countries climate change is likely to be presented as a problem caused by technology (e.g., industrialization) and grasped through science. Climate change also existed in this understanding as something solvable by technology, the maintenance of natural resources and economic growth. In comparison in economically poorer countries, climate change is presented as a matter of ethics and environmental justice. The framing is essential for how climate change is managed. The science and business frame in wealthy countries can allow them to reinforce, maintain and enlarge their economic and social power. At the same time, an ethical and justice frame can deconstruct and challenge current power structures (Swim, Vescio, Dahl & Zawadzki, 2018, p. 216). American ecomodernism's coalition of biofuels and renewables with national security supports the political and economic supremacy of dominant institutions, whilst public criticism is marginalized and legitimizing the perception of current relations of productions as appropriate. Establishing biofuels as the eco-friendly competitor to Big Oil attracts national security concerned citizens, and those concerned with the environment. Yet, green consumerism is usually viewed as feminine, and national security as masculine (Dockstader & Bell, 2020, p. 646).

As Connell proclaims, gender is inevitably a social structure among other social structures such as race and class. To understand working-class masculinities, for example, it is necessary to give as much attention to the class- as well as the gender-perspective (Connell, 2005, p. 75). "To understand gender, then, we must constantly go beyond gender. The same applies in reverse" (Connell, 2005, p. 76).

### **Gender bending, gender conforming and homophobia**

Research show that women tend to fall into the concerned category and men into the dismissive category in climate change opinion groups (Swim & Geiger, 2018, p. 438). When men are gender bending, e.g., applying behaviour inconsistent with one's gender, they are not automatically viewed as gay but other people become uncertain of their heterosexual identity (Swim, Gillis & Hamaty, 2019, p. 18). Both men and women were



perceived as being more heterosexual when gender conforming, e.g., applying behaviour consistent with one's own gender. Pro-environmental behaviour was generally looked on as more feminine than masculine (Swim et. al., 2019, p. 11). The social consequences for sexual identity and trait impressions could influence people who possibly in a strategic way pick behaviour with these consequences in mind. For men, it could be to engage in masculine pro-environmental behaviour to reduce threats to gender identity (Swim et. al., 2019, p. 18).

As Kimmel declared, homophobia is deeply rooted in our history and was exceptionally present in parental guiding in the late 19<sup>th</sup> century. It was parents' responsibility to ensure their sons to achieve the "correct" gender identity and sexual organization (Kimmel, 2005, p. 12). In hegemonic masculinity the main power relation after the dominance men have over subordinated women is the dominance heterosexual men have over homosexual men (Connell, 2005, p. 78). Swim et. al. (2018) finds, when testing the main structure in discourses about climate change as gendered, that gender matching was more obvious in men's approach than in women's approach. Men were grading the science-business constructed arguments more positively than the ethical-justice constructed arguments. Men were also more likely to perceive other men using ethical-justice arguments as gay and ascribe them feminine attributes (Swim, Vescio, Dahl & Zawadzki, 2018, p. 222).

The fear of appearing gay has of course been grasped by the advertisement industries. When Dockstader & Bell investigates how biofuels are advertised the masculine theme were extremely present, this to an extent that was not expected. (Dockstader & Bell, 2020, p. 649). The discomfort numerous men feel about consuming green products is taken advantages of by the biofuel producer investigated. One of the advertising techniques are "Real Men" bumper stickers (e.g., "REAL MEN use BIODIESEL"), which ambiguously poke fun at hegemonic masculinity, and embody its values (Dockstader & Bell, 2020, p. 650). Sovacool et. al. finds that men, unlike women, when selecting cars have preferences about speed, acceleration, status and sex appeal which also is in line with hegemonic masculinity. Men was also found to have less environmental awareness in general (Sovacool, Kester, Noel & de Rubens, 2019, p. 200). The data suggests that the earlier connected gender distinctions to cars have starts to be mixed up, in part through electrical vehicles (Sovacool et. al., 2019, p. 201).

Swim et. al. (2018) finds, when testing the main structure in discourses about climate change as gendered, that gender matching was more obvious in men's approach than in women's approach. Men were grading the science-business constructed arguments more positively than the ethical-justice constructed arguments. (Swim, Vescio, Dahl & Zawadzki, 2018, p. 222). The general misunderstanding may be that pro-arguments for climate change action are associated with women and con arguments with men, given the differences in concern for climate change. However, in addition there is also dimensions to pro- and con arguments where arguments concerning ethics and justice align with traditional feminine care taking roles, and arguments concerning science and business are traditional manly regardless position in the climate change matter (Swim et. al., 2018, p. 223).

## Conclusion

In this thesis my aim was to understand different types of masculinities and their role in climate change. With my research question, “How has masculinity affected climate change in the global north the last 10 years?”, the intention was to investigate how masculinity has been discussed in research articles on gender and climate change published between 2010-2020 in established scientific journals. The deficiency of research on this topic were remarkable. I however found several noteworthy themes in the research available. The main themes when explaining men’s approach to climate change are resistance to change, gender conformity due to homophobia, restricted emotion range and defence of identity.

Hegemonic masculinity is certainly present in men’s environmental behaviours. As Connell notes, “there is a clear resistance to change” in hegemonic masculinity. This was confirmed by, among others, Milnes & Haney that found that men had a 60 percent less likelihood than women of changing environmental perspectives after a natural disaster. Since patriarchy historically and continually assign men a privileged position over women, those wishing to preserve their privileges will be reluctant to change the system. As Connell puts it “A gender order where men dominate women cannot avoid constituting men as an interest group concerned with defence, and women as an interest group concerned with change” (Connell, 2005, p. 82). This statement is supported, among others, by Swim & Geiger who in their study about climate change opinion groups found that women tend to fall into the concerned category and men into the dismissive (Swim & Geiger, 2018, p. 438). Naturally, concerned groups are interested in change and dismissive are interested in defence.

The social importance of gender conforming is repeatedly demonstrated, in the studied literature. So is the fear of appearing gay amongst heterosexual men. The social understanding of pro-environmental behaviour as linked to femininity is recurrent, especially in ethical justice arguments of environmentalism, as illustrated in the article by Swim et. al. (2018). Kimmel noted American presidents’ fear of not being manly enough. In line with this Daggett cites *Authoritarian Personality*, successful men with authoritarian characteristics “show deep-seated fears of weakness” in themselves. This weakness is deeply connected to fears of non-masculinity. Erich Fromm is also cited, “the lust for

power is not rooted in strength but in weakness... It is the desperate attempt to gain secondary strength where genuine strength is lacking (Daggett, 2018, p. 36).

The frugality of emotions in hegemonic masculinity were for instance shown in Milnes & Haney's article on experiences after a natural disaster. None of the interviewed men expressed sadness after such a life-changing experience; but defensiveness where common (Milnes & Haney, 2017, p. 27). One of the participants in Dockstader & Bell's study expressed the high emotional cost when committing to environmentalism. There is certainly a high emotional cost in climate change action, and the emotional work is not in line with hegemonic masculinity. A theoretical parallel can be seen in masculinity theory as Kimmel refers to Parson's theory of male aggression. Parson argues that a boy needs to reject identification with his mother to obtain a "healthy" masculine identity, when the aim is to be a "bad boy". Identification with mothers could possibly be developing a range of emotions and to be caring, something that often is associated with climate change action (Kimmel, 2005, p. 13). Environmentalism is in the studied sources explained as grounded in "caring for the planet and those harmed by environmental problems" (Swim, Gillis & Hamaty, 2019, p. 2).

Petro-masculinity points out the more significant meanings of fossil fuels than just profit. Fossil fuels has had an important part in shaping identities and is thereby a threat for post-carbon energy politics, according to Daggett (2018). Correspondingly Anshelm & Hultman talks about climate sceptics, of the importance to understand how their masculinity is challenged by climate change (Anshelm & Hultman, 2014, p. 91). Fossil fuels have been connected to a whole western lifestyle since the new imperialism of the 19<sup>th</sup> century. It is not a surprise that white conservative men in America is the most forthright deniers of climate change and also the most committed advocates for fossil fuels (Daggett, 2018, p. 27-28). Several studies of this thesis have tracked men's sceptic arguments on climate change to the men's past working life or identity. It is confirmed that men are often defending their identity and background with arguments labelled as rational and positivistic scientific (Anshelm & Hultman, 2014, p. 93).

Fossil fuel remarkably contributed to the establishment of our modern world. The gratitude for this and the possibilities its giving is still living on. It is significant to remember, during the industrialisation's cause of harm to our planet, the industrialisation was also

contributing to the abolition of slavery, raised literacy scope, gender equality and lowered poverty (Daggett, 2018, p. 30).

Several contributors within the field observe how the 90s brought a shift in hegemonic masculinity, from industrial modernity to eco-modern masculinity. The eco-modern man ought to be tough and unhesitating, but with adequate fragments of compassion and care (Anshelm & Hultman, 2014, p. 92). Eco-modern masculinity is also described as an awakener for a specific class-based environmentalism (Dockstader & Bell, 2020, p. 643).

In summary, the literature review provides a clear answer to the research question regarding how masculinity has affected climate change in the global north the last 10 years. I can conclude that norms, structures, and behaviours surrounding ideal types of masculinities have contributed to resistance to environmentalism. Connell's concept of hegemonic masculinity and Kimmel's theory of men's history features in this thesis as a central theoretical as well as analytical concept. With these concepts and theories, I have been able to connect findings in the research. Hegemonic masculinity for instance establishes resistance to change which is found in several studies in this thesis. As Kimmel discusses homophobia in history, it is present as a factor of men's scepticism to environmentalism in a number of studies reviewed. I argue that we need to further our understanding of hegemonic masculinities if we are to understand other social structures that intersect with gender, especially race and class. A more diverse measure of gender identity is also needed in future research on climate change.

As Daggett stated (briefly declared in table 1 in this thesis) there is a demand for developing an ethics and an emotional ability for the life on an earth featured by sweeping change and annual mass deaths (Daggett, 2018, p. 42). The change in hegemonic masculinity, from industrial modernity to eco-modern masculinity is positive for men's ability to connect with their feelings. As Daggett proclaims this will probably be essential in our future world. There is hope for the accepted emotional range in hegemonic masculinities to keep expanding.

## Literature

- Anshelm, J. & Hultman, M. (2014). A green fatwā? Climate change as a threat to the masculinity of industrial modernity. *NORMA: International Journal for Masculinity Studies*, 9(2), 84-96. <https://doi.org/10.1080/18902138.2014.908627>
- Connell, R. W. (2005). *Masculinities* (second edition). Cambridge: Polity Press.
- Christensen, A. D. & Jensen, S. Q. (2014). Combining hegemonic masculinity and intersectionality. *NORMA: International Journal for Masculinity Studies*, 9(1), 60-75. <https://doi.org/10.1080/18902138.2014.892289>
- Daggett, C. (2018). Petro-masculinity: Fossil Fuels and Authoritarian Desire. *Millenium: Journal of International Studies*, 47(1), 25-44. <https://doi.org/10.1177/0305829818775817>
- Dockstader, S. (2020). Ecomodern Masculinity, Energy Security, and Green Consumerism: The Rise of Biofuels in the United States. *Critical Sociology*, 46(4-5), 643-660. <https://doi.org/10.1177/0896920519885010>
- Geiger, N. & Swim, J. K. (2018). Gendered Impressions of Issue Publics as Predictors of Climate Activism. *Frontiers in communication*, 2018-12-04, Vol. 3. <https://doi.org/10.3389/fcomm.2018.00054>
- Kimmel, M. S. (2005). *The history of men: essays in the history of American and British masculinities*. Ithaca: State University of New York Press.
- Milnes, T. & Haney, T. J. (2017). “There’s Always Winners and Losers”: Traditional Masculinity, Resource Dependence, and Post-Disaster Environmental Complacency.” *Environmental Sociology*, 3(3), 260-273. <https://doi.org/10.1080/23251042.2017.1295837>
- Moller, M. (2007). Exploiting Patterns: A Critique of Hegemonic Masculinity. *Journal of Gender Studies*, 16(3), 263-276. <https://doi.org/10.1080/09589230701562970>
- Sovacool, B. K., Kester, J., Noel, L. & de Rubens, G. Z. (2019). Are electric vehicles masculinized? Gender, identity, and environmental values in Nordic transport practices

and vehicle-to-grid (V2G) preferences. *Transportation Research Part D*, 19(72), 187-202.  
<https://doi.org/10.1016/j.trd.2019.04.013>

Swim, J. K. & Geiger, N. (2018). The gendered nature of stereotypes about climate change opinion groups. *Group Processes & Intergroup Relations*, 21(3), 438-456.  
<https://doi.org/10.1177/1368430217747406>

Swim, J. K., Gillis, A. J. & Hamaty, K. J. (2019). Gender Bending and Gender Conformity: The Social Consequences of Engaging in Feminine and Masculine Pro-Environmental Behaviours. *Sex Roles*, 82, 363–385. <https://doi.org/10.1007/s11199-019-01061-9>

Swim, J. K., Vescio, T. K., Dahl, J. L. & Zawadzki, S. J. (2018). Gendered discourse about climate change policies. *Global Environmental Change*, 18(48), 216-225.  
<https://doi.org/10.1016/j.gloenvcha.2017.12.005>

Weston, P. (2019, 07. August). Men less likely to recycle because they are worried people will think they're gay, study claims. *Independent*. <https://www.independent.co.uk/climate-change/news/recycling-environmentalism-gender-sexual-orientation-gay-a9045751.html>





# Appendix

Table 1: Overview of the empirical material

Authors/ Year/ Country	Focus/ Purpose	Methods	Context/ Sample	Findings	Gaps/limitations
Anshelm &Hultman (2014). Sweden.	Investigate climate sceptics, their arguments as linked to a certain masculinity related to industrial modernisation, natural science and engineering rationality (p. 85).	Document analysis.	Analyse based on a data set of 3500 articles, published in all Swedish newspaper, main regional newspapers and magazines.	The climate sceptics were with almost no exception men older than 50 years of age, with authoritative positions in academia or big private companies (p. 88).  The climate sceptic scientists were almost never identified by name, with the excuse of scientists being silenced (p. 89)  Climate scepticism can be explained as a threat to masculinity of the industrial modern world (p. 84).	The study does not review actual behaviours, only published articles. That could explain the climate sceptics very small nuances in age and background.
Daggett (2018). USA.	Trough the concept of “petro-masculinity”, investigate the growing harmful relationship of climate denial, racism and misogyny (p. 25). Masculinities as multiple adopting Connell’s concept (p. 33).	Literature review.	Articles non systematically collected.	Fossil violence could be understood as a misogynist tactic (p. 43).  Pollutants, immigrants and gender deviants could be understood as threats to some types of masculinity (p. 44).	When literature is not systematically collected there is always risk of choosing literature that fits the goal and not being objectively in the work.  Environment scholars suggests focus on elaborating an ethics and an emotional ability for the life on an earth featured by sweeping change and annual mass deaths (p. 42).
Dockstad er & Bell (2020).	Expose how biofuels gets advertised as a key for solving climate change through the concept	Case study including field observation, semi-	15 interviews with customers and 2 with the owner at Greentech (one of	The company had a clear masculine theme when marketing their product as a climate change solver. How biofuel producers embrace certain	Few have explored how industries classified as “green” possibly use gendered identities in comparable ways

USA.	of "ecomodern masculinity" when there is strong documentation on biofuels as socially and environmentally damaging (p.643).	structured interviews and marketing materials.	the main biofuel companies of the United States).	parts of hegemonic masculinity while distancing from those distinctives related to fossil-fuel (p.656).	as environmentally damaging industries does (p. 648).
Milnes & Haney (2017). Canada.	Examine traditional masculinity, men and men's attitudes to climate change after experiencing a natural disaster (p. 2). Adopting Connell's concept of masculinity as a gender project (p. 4).	Mixed methods (quantitative/qualitative).  Survey and in-depth qualitative interviews.	Survey respondents consisted by 407 citizens of Calgary impacted by the flood.  Interview-participants consisted of 20 men with close experiences from the flood.	Males change their perspective on environment 60% less than women after a disaster (p. 15).  Men has a distinct opposition against change (p. 28).  Even after experiencing environmental disaster, no men interviewed liked the idea of stopping the oil production in the town, instead they put blame elsewhere or only as natural caused, or claimed economic growth and jobs as more important (p. 28)	Sample is representative, but higher-income households are overrepresented (p.12).  Future researchers are suggested to use a more diverse measure of gender identity.  The question in the survey about change does not describe in what way (p. 30).
Sovacool, Kester, Noel & de Rubens (2019).  Denmark, Finland, Iceland, Norway and Sweden.	Reveal the indirect and complex ways gender can affect views and preferences for electric and conventional vehicles (p.188).	Mixed methods.  Surveys, expert interviews, and focus groups.	The survey was completed by a mix of 4322 random respondents and 745 non-random respondents.  227 semi-structured interviews with 257 participants.  8 focus groups with 61 participants.	Men use, and own cars more often than women. Men drive farther and have a lower use of public transport.  Women are more aware of environmental challenges. Women care more about environment- and safety aspects of vehicles.  Women give little attention to acceleration, horsepower and sound, whereas men accentuate range, sex appeal and acceleration (p. 193).	Suggestions for future research contains gender in context with demographic, geographic or political variables would add depth to examine how gender intersect with other traits.  A study with focus on the "supply side" could be gratifying to examine (p.201).
Swim & Geiger (2018). USA.	Explores each of the six Americas climate change opinion groups that speaks for opinions from dismissive to alarmed, analysing the gendered patterns and demeanours in the groups and views of others on the groups (p.438).	Quantitative.  Survey.	407 participants. 178 men, 228 women and one not marking gender.	Women were more concerned about climate change, and men more likely to be dismissive (p. 440).  The dismissive opinion groups are seen as masculine and had strong negative trait ratings. The cautious and concerned groups scored high on positive feminine traits (p. 446).	Not randomly collected sample.  The groups did not have similar numbers of members, the intermediate groups were bigger (p. 453).  Future research is recommended to focus on the gendered stereotypes linked to the

				The alarmed were viewed as having the same chances of having negative feminine and positive masculine traits, and similarly improbable for the chances of having both positive feminine and negative masculine traits (p. 447).	groups, for example their capability to impact others (p. 454).
Swim, Gillis & Hamaty (2019).  USA.	Examines social consequences for women and men that apply gendered pro-environmental behaviours (PEBs) (p. 17).	Quantitative.  Surveys.  Single paper meta-analysis.  Experiment	Study 1 had 163 participants.  Study 2 consisted of 494 participants.  Study 3 had 303 participants from U.S. university's psychology subject pool.	With PEBs, both men and women, and their friends, are perceived as more heterosexual when gender conforming than when gender bending (p. 11).  Both feminine, neutral and masculine types of PEBs were perceived as more feminine than masculine (p. 11).	In the surveys there were no variable that did not engage in environment issues, that could question whether it was engaging in PEBs that got a feminine imprint (p. 19).  Future research suggests containing focus on beliefs about the consequences for gender bending and conformity on perceptions of sexual identity (p. 18).
Swim, Vescio, Dahl & Zawadzki (2018).  USA.	Testing the major structure used in discourse about climate change as gendered, and attitudes on applying diverge structures, both the receptivity for applying the diverge frame and attitudes to others who does (p.216).	Quantitative methods. Surveys, online for study 1 and 3, and at a set classroom with computers for study 2.	Study 1 consisted of 124 participants recruited through MTURK.  Study 2 consisted of 122 men and 133 women recruited from an undergraduate Psychology department participant pool at a large North-eastern American public university.  Study 3 consisted of 180 men and 256 women recruited through MTURK.	Gender matching was more obvious in men's' approach about climate change policy arguments than in women's'.  Men were grading the science-business constructed arguments more positively than the ethical-justice constructed arguments.  Men also perceived the man using ethical-justice arguments as gay and ascribed him feminine attributes, both positive and negative ones (p. 222).	Study is based on self-reported behaviour; not actual behaviours were examined.  Not randomly collected samples.  The design of the study perhaps boosted the probability to catch gender-matching results (p. 223).

