

Climate Change and the Populist Radical Right:

A Quantitative Exploration of Attitudes in Sweden



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ABSTRACT

This thesis explores the relationship between attitudes related to the populist radical right toward climate change skepticism in Sweden, a country that has had a recent spike in a radical right party – The Sweden Democrats. The literature on climate change attitudes and populist radical right is expanding, stating that its leaders and supporters are often skeptical of climate science and hostile toward policies aimed at mitigating climate change. But due to the complex nature of the populist radical right, I argue that the different components of the populist radical right need to be disaggregated further, in their relationship to climate change. Drawing on the literature on climate change, I focus on public attitudes toward attribution and impact skepticism, referring to the idea to what degree individuals doubt the human influence in climate change as the primary driver of global warming, and the idea of various attitudes related to the potential consequences of climate change. Using data from the European Social Survey Round 8, the study examines the extent to which climate change attitudes and different attitudes connected to the populist radical right are related. The study uncovers that there are overall few climate skeptics in Sweden and that the number of people who are concerned over climate change impacts is not equally low.

Furthermore, I find that the effect of identifying with the Sweden Democrats is a significant and positive predictor for attribution skepticism, while this is not the case for impact skepticism. Additionally, I find that several key elements of the populist radical right, such as authoritarianism, nativism, and certain aspect of populism are predictors for attribution skepticism. Moreover, the results suggest that this relationship is not overall the same for impact skepticism. My findings point to the importance of disaggregating between the different elements of populism regarding climate change attitudes, as the explanatory power of the elements differs between attribution and impact skepticism. Some pathways for further research include exploring this relationship in other countries, as well as over a longer period, to gain a better understanding of the drives of these attitudes and how they may evolve.

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Replication files (data and R-scripts) are available on request. Any errors and inaccuracies are my own.

TABLE OF CONTENTS

1. Introduction	1
1.1 Outline of thesis.....	5
2. Previous literature.....	6
2.1 PRR Voters and Attitudes Towards Climate Policies	7
2.2 PRR Voter's Attitudes Toward Climate Change Beliefs	9
3.Theoretical Framework	13
3.1 The Populist Radical Right.....	13
3.2 The Relationship Between the Populist Radical Right and Climate Change Skepticism.	16
3.2.1 Hostility to Climate Action	16
3.2.2 The Populist Element	17
3.3.3 The Nativist Element.....	20
3.2.4 The Authoritarian Element.....	22
4. Empirical Approach	26
4.1 Case Selection	26
4.2 Data Selection – The European Social Survey Round 8.....	29
4.2.1 European Social Survey Round 8 in Sweden	31
4.3 Dependent Variables	32
4.3.1 Climate Change Attitudes	32
4.4 Explanatory Variables	34
4.4.1 Measuring Party Identification	34
4.4.2 Measures of populist attitudes	35
4.4.3 Nativist Variables	38
4.4.4 Authoritarian Variables	39
4.5 Control Variables	41
4.6 Model Choice - Binomial Logistic Regression	43
4.7 Missingness	44
4.8 Validity of Empirical Approach	45
4.8.1 Internal and External Validity	45
4.9 Measurement Validity	46
4.9.1 Measuring attitudes	46
5.0 Exploring Populist Radical Right Attitudes Toward Climate Change.....	48
5.1 Results for models with climate skepticism as the dependent variable	49
5.1.1 Populist Attitudes	51

5.1.2 Nativist attitudes	51
5.1.3 Authoritarian attitudes	52
5.1.4 Control Variables	53
5.2 Model Evaluation	54
5.3 Results for Models with Climate Concern as the Dependent Variable	56
5.3.1 Populist Attitudes	58
5.3.2 Nativist attitudes	58
5.3.3 Authoritarian attitudes	59
5.3.4 Control variables	59
5.4 Model Evaluation	60
6. Concluding Remarks	61
6.1 Summary of Findings	63
6.2 Implications of Findings	65
6.3 Future Research	69
7. References	72
Appendix	81
A. Descriptive Statistics	81
B. Coding of Variables	87
C. Evaluating Models	90

LIST OF TABLES

Table 1: Distribution of climate skepticism	33
Table 2: Distribution of climate concern.....	33
Table 3: Percentage of identifying with the Sweden Democrats v. all other parties.	34
Table 4: Explanatory variable: Trust toward politicians	37
Table 5: Explanatory variable: European Unification.....	38
Table 6: Explanatory variable: Country's cultural life undermined or enriched by immigrants	39
Table 7: Explanatory variable: Important to do what is told and follow rules.....	40
Table 8: Odds Ratio of thinking climate change is due to natural causes over human activity.	50
Table 9: Odds Ratio of not worrying over climate changes' impact.....	57

1. Introduction

Climate change is arguably one of the greatest challenges the world is facing in the 21st century. Over recent decades, climate change has evolved from a topic primarily dealt with by natural scientists to an issue of wide public concern (Forchtner 2019). As the world faces an increasing climate crisis, there has been a growing recognition among political parties across the ideological spectrum of the importance of addressing the issue as a significant public concern. At the same time, populist radical right (PRR) parties, are frequently hostile to policies aimed at mitigating climate change. Their leaders and supporters exhibit greater degrees of climate skepticism compared to those of other political parties (Lockwood 2018). This study will look into this group and try to figure out which parts of their beliefs and attitudes are related to skepticism toward climate change.

The success of both international and national climate policies is contingent on garnering public support (Lee et.al 2015). With the recent emergence of a purported “global populist radical right wave” and the increasing visibility of the climate crisis, the issue has gained importance. If individuals and political parties acknowledge climate change as real, then denying the human-induced component can undermine willingness to act. Considering that public support is an essential condition for the implementation of far-reaching climate policies, any degree of skepticism among citizens toward climate change has the potential to limit progress (Huber 2020).

It is academic consensus that the populist radical right displays a higher degree of climate skepticism compared to other political parties (Lockwood 2018). This has become apparent in various countries where such parties have demonstrated a tendency to retract existing climate policies (Lockwood 2018). The Trump administration’s reversal of carbon-related Environmental Protection Agency (EPA) regulations and the withdrawal of the United States from the Paris Agreement highlights the precarious state of climate policy (Lockwood 2018). Consequently, some scholars argue that the stance of populist radical right parties on climate change indicates a shift from being a valence issue to a positional issue, which presents a considerable challenge (Fraune and Knodt, 2018). These developments underscore the urgency of the climate crisis and the need for innovative solutions that can overcome the obstacles presented by populist resistance to climate change impacts and climate action.

Existing studies have demonstrated a connection between the populist radical right and climate change support. This group of parties has increasingly been identified as an important driver for climate change denial and opposition to climate policies (Lockwood 2018, Kulin et.al 2021). Despite this congruence between the populist radical right and climate skepticism, a surprising dearth of academic research investigates its causes and nature. It is therefore a gap in understanding the relationships between attitudes associated with key ideological components of the populist radical right and climate change attitudes. While the theoretical literature exploring the link is expanding, additional empirical evidence is needed to better understand how the populist radical right interacts with climate skepticism in practice. Such research is essential for better understanding populist hostility, and response to it that allows for the acceleration and continuation of public policy to mitigate climate change. Although both phenomena have been analyzed independently, there is a crucial need for further research to examine their nexus. This is of especially interest given the growth and rise to power of populist radical right parties in many countries, and the fact that public support is a critical factor in democratic decision-making. Obtaining further insight into this link and the factors affecting public support for climate change is essential for policymakers seeking to address the issue.

The analysis of the populist radical right as a whole concept has been a topic of interest in various studies, but it is vital to note that the concept comprises several separate and distinct elements, including a range of beliefs, attitudes, and stereotypes. As the group is not homogeneous, it is critical to identify which specific elements and attitudes are particularly conflictive in their relationship with climate change. Even though there is a growing body of literature exploring this relationship, few studies have examined the distinctive components of the concept and sought to determine the most relevant attitudes related to the subject. This research gap is particularly important given the increased political power and support that these parties have gained in recent years, making it crucial to gain insight into the factors that shape their views on climate change.

The purpose of this thesis is to identify which attitudes associated with the populist radical right are related to climate change skepticism. Since there is academic consensus that partisanship and political ideology are, writ large, some of the most influential explanations of attitudes toward climate change and environmental politics (Huber 2020). The study will therefore aim to investigate which beliefs and attitudes held by the populist radical right may affect climate change beliefs. To evaluate whether parliamentary decisions reflect the values of the public, it

is essential to understand the attitudes of the general population towards climate change. Individuals identifying with the populist radical right are recognized to share some similar characteristics. Whereas Cas Mudde presents three central features consistent with the PRR – populism, nativism, and authoritarianism – which constitute their ideological core (2016). These attitudes associated with the populist radical right will be investigated. By examining values and attitudes connected to the core features of the PRR, the study seeks to identify which attitudes may pose the greatest obstacles to climate change beliefs, and which typical populist radical attitudes correlated more with views on climate change skepticism.

Public opinion is a key determinant of policy change in democratic countries (Burstein, 2003). Establishing what attitudes, the general population hold is necessary to evaluate whether parliamentary decisions reflect the values held by the public. Deeper knowledge about public attitudes helps to anticipate public responses in the process of implementing different climate measures, which can contribute to the design and implementation of effective policies (Stefan Drews and Jeroen C.J.M van der Berg 2016). Getting an understanding of how these attributes and other factors affect attitudes, is of interest since public support is decisive for an effective policy outcome. By disentangling the different forces at work, one can also find out the root and some of the reasons why several people oppose climate change as a real and serious issue. The findings presented here will also carry some implications for the communication of scientific evidence, as well as on climate change. Considering the findings, it may be useful to develop new ways to communicate the importance of climate action.

In this thesis, I particularly rely on individual-level explanations for explaining variation in attitudes toward climate change, in Sweden. Sweden provides a special interesting case. The country is a least likely case for observing climate change skepticism. It is one of the world's richest countries, measured in income per capita, having a moderately low level of inequality and a well-developed welfare state. Nevertheless, the Sweden Democrats – regarded as a populist radical right party (thePopuList 2023) have increased in scope and support and are now one of Sweden's biggest political parties. I will focus on political identification explanations and populist, nativist, and authoritarian explanations for variation in climate change attitudes. I work with the following definition of attitudes: “An attitude is a predisposition to respond favorably or unfavorably concerning a given attitude object” (Oskamp and Schultz p.9, 2005). Regarding political orientation, I focus on the populist radical right side of the political spectrum. The existing literature on the populist radical right and its relationship to climate

change provide a starting point from which I make predictions based on existing explanations related to the populist radical right and climate change. To analyze what explains variations in attitudes toward climate change, I draw on one of the most extensive versions of data that is currently available on attitudes toward these issues from the European Social Survey (ESS) Round 8. In the ESS Round 8, respondents are asked about their attitude towards climate change, as well as concepts related to politics.

This thesis contributes to the literature on European far-right climate-change attitudes. The focus on Europe is due to its wide variety of far-right actors, which at the same time are said to form a relatively coherent whole. The contribution will try to uncover which attributes of attitudes with PRR voters can explain their climate change orientation and provide some insight into this link. I take the arguments surrounding the populist radical right and climate attitudes and perform empirical tests on the individual level. The design of the thesis allows for differentiation of the role of populism from other key components of the populist radical right, such as nativism and authoritarianism, as well as left-right-placement. My approach is embedded in the broader literature on what shapes people's attitudes toward climate change. This is important because public opinion is a significant determinant of policy change in democratic countries. Politicians may be unwilling to implement climate policies if they expect public opposition. This thesis will therefore pursue to provide an improved understanding of the various factors influencing public view towards climate change causes and impacts. The acquired insight can assist in improving communication and policy design to garner more public support for climate policy.

To establish the connection between climate change skepticism and populism, nativism, and authoritarianism, the study shows that the latter three are all associated with climate change skepticism. However, attitudes related to populism and authoritarianism emerged as stronger predictors compared to nativism. Furthermore, the analysis revealed that the attitudes toward climate change concerns are less stable, with nativism being a larger predictor than the other attitudes. Nonetheless, the nativist aspect remained the most consistent attitude related to both climate change skepticism and concern.

1.1 Outline of thesis

I will now outline the remainder of this thesis. Chapter 2 provides an overview of the existing literature on the relationship between the populist radical right and climate change views. Then in Chapter 3, the theoretical framework is outlined. It will focus on the attitudes typically associated with the populist radical right party family, as well as the connection between the populist radical right and climate change. This chapter also presents the theoretical assumptions and hypotheses of the study. Chapter 4 details the empirical approach of the thesis, including the data, methods, and operationalization of variables. The validity of the empirical approach is also discussed. In Chapter 5 I test my hypotheses and present the findings of the study. Chapter 6 summarizes the conclusions and implications of the findings, as well as the limitations of the study. Finally, some potential avenues for future research are discussed.

2. Previous literature

This chapter serves as the conceptual toolbox for the thesis, examining prior research and the relevant conceptual elements. It explores the intersection of the populist radical right and attitudes and beliefs towards climate change. The goal is to position the thesis within the broader literature and academic discourse. By conducting a comprehensive review of significant contributions and their achievements, the chapter identifies potential research gaps and discusses suggestions for future improvement. The increasing need for effective environmental policy measures and management highlights the significance of understanding attitudes towards climate skepticism. Researchers have made valuable contributions by investigating and analyzing these attitudes, shedding light on the issue. The academic literature has witnessed a growing body of work focusing on the presence of climate change denialism within populist platforms and among right-wing extremists (Lockwood, 2018; McCright and Dunlap, 2011). The existing literature on the field encompasses studies that investigate the populist radical right and their connection to climate policy, as well as their relationship to climate skepticism. To comprehensively cover the field, this literature review will cover both aspects, providing an inclusive analysis of the research conducted in these areas. Understanding public support for climate policies is central for several reasons. There is broad academic consensus that public opinion is a key determinant of policy change in democratic countries (Burstein 2003). Knowledge about public attitudes will help to anticipate public responses in the process of implementing different climate measures, which also can contribute to the design and implementation of effective policies (Stefan Drews and Jeropen C.J.M van der Bergh 2016).

2.1 PRR Voters and Attitudes Towards Climate Policies

Support for climate policies such as fossil fuel taxes has been tied to a range of factors such as climate change knowledge, beliefs and risk perceptions, basic values, perceived scientific consensus, and social and political trust (Kulin, Johansson, and Dunlap, 2021). Previous research has identified political orientation as a key determinant of public support. Studies show that left-leaning people are more pro-environmental compared to others (Jagers, Haring, and Matti 2017). Jagers, Haring, and Matti show using unique survey data, that ideology is related to conceptions about the effectiveness and fairness of different policy tools, which then in turn steer preferences (2017).

Kulin, Johansson, and Dunlap in their “Nationalist ideology, rightwing populism, and public views about climate change in Europe» (2021) identify nationalist ideology as an important predictor of two public responses – climate change skepticism and opposition to increasing fossil fuel taxes. Their results show that individuals holding attitudes consistent with nationalist ideology are more likely to be skeptical about the realities of climate change, and substantially more likely to oppose increasing taxes on fossil fuels. They find that nationalist ideology is the most important predictor in their analyses, surpassing predictors such as traditional left-right ideology, political trust, and environmental values (Kulin, Johansson, and Dunlap, 2021). Their results demonstrate that, when people with strong nationalist leanings form their attitudes toward climate policies, nationalist concerns appear to trump beliefs and concerns about climate change. This fits well with literature reporting that PRR parties see many climate change policies as a cosmopolitan threat to national sovereignty (2021). Furthermore, in a study conducted by Tjernström and Tietenberg, the results show that attitudes do indeed matter in implementing policy and that attitudes are shaped not only by how individuals react to the specific attributes of climate change but also by information, by attitudes toward the trustworthiness of government and by the openness of society (2007).

Other studies have explored support for public policies from a perspective based on trust and credibility. Hammar and Jagers focus on the use of a tax on carbon dioxide, a policy tool aimed at coordinating national emissions targets in Sweden (2009). This policy tool is viewed as cost-effective relative to other alternative policy measures in the sense that taxes can be designed to reach established goals at low social costs. However, Hammar and Jagers emphasize that such taxes are quite unpopular among citizens, when compared to, measures based upon collective commitment and voluntary based measures. Using individual-level data, they analyze whether

support for an increase in the CO₂ tax on gasoline can be explained by citizens' generalized trust in other individuals or by their trust in politicians. Differently put, they find that its popularity may be partly determined by how it is framed in the debate on how society successfully can combat climate change. This is central, as it shows that trust in politicians may influence attitudes toward climate measures. PRR parties are often known for rhetoric that to a higher degree is based on distrust of elites and politicians, as this is a central aspect of populist rhetoric.

Previous research has made it evident that public opinion influences governments' action regarding climate change. This has been shown most clearly when initiatives for mitigation efforts have been defeated by elections or public referenda (Fairbrother 2022). For instance, Australians' election of a new government in 2013 that promised specifically to repeal the country's carbon tax. Additionally, the French government's decision to abandon a proposal for increased fossil fuel taxes in response to criticism from the Yellow Vests movement further highlights the influence of public backlash on climate policy (Fairbrother 2022). Thus, it is clear from previous research that public opinion plays a crucial role in shaping climate-related decisions and policies. Malcom Fairbrother (2022) emphasizes that the number of individuals who do not believe in climate change is relatively small. However, it is important to note that believing in environmental issues and believing in the feasibility of potential solutions are distinct concepts. Furthermore, the power of public attitudes has been related to political distrust. The populist radical right's emphasis on political distrust and skepticism constitutes a fundamental element of the populist discourse commonly employed by PRR parties.

2.2 PRR Voter's Attitudes Toward Climate Change Beliefs

Given the discrepancy between the findings of climate change science and beliefs, many studies have investigated a wide range of covariates associated with skepticism, such as environmental values, political orientation, and demographic factors (Hornsey et.al 2016). By investigating these factors, researchers seek to gain a deeper understanding of the complex interplay between individual beliefs, attitudes, and socio-demographic factors in shaping climate change skepticism. The majority of people in most countries believe in climate change, however, beliefs about causes of climate change may vary. A sizable portion of the population in many countries still expresses some form of doubt or skepticism that climate change is human made (Poortinga et.al 2019). This view stands in contrast to the overwhelming scientific agreement about anthropogenic climate change (Cook et.al 2016).

When looking at the populist radical right and attitudes related to climate change skepticism, studies have looked at psychological factors. Jylhä and Helmer's (2020) study revealed that an index capturing exclusionary and anti-egalitarian preferences was the strongest predictor for climate change denial in Sweden. This is central factors in relation to populism. Anti-establishment attitudes correlated weakly and positively with climate change denial, and this correlation vanished when exclusionism/anti-egalitarianism was controlled for. This could mean that people who have negative views of the cosmopolitan and liberal parts of the political elite are disposed to dismiss the reality and dangers of climate change and resist climate politics. They also imply that it is possible that some aspects of the anti-establishment rhetoric used in contemporary populist radical-wing discourses could increase, and be related to, anti-environmentalism over and above the effects of conservatism or exclusionary/anti-egalitarian (2020). Further, generally, conservative worldviews and endorsement of traditional values explained some unique parts of the variance in climate change denial. In addition, a related construct "right-wing authoritarianism" predicted denial indirectly. They conclude to have shown that antiestablishment attitudes are not consistently linked or vital to climate change denial, although critical views on liberal and cosmopolitan parts of the elite may play a role in explaining dismissive climate-related attitudes (2020). Thus, variables linked to right-wing populism have been found to affect climate change denial.

Furthermore, several studies have been conducted on the relationship between voter orientation between PRR parties and climate skepticism. Studies in Western countries find that the most crucial factor in climate change beliefs is political orientation. For instance, studies using non-representative samples or representative samples from single countries find that several political attitudes associated with PRR parties are related to climate change beliefs (Kulin et.al 2021). Studies in the US have generally found that those who are more right-wing are more likely to be climate skeptics and less in favor of action on climate change (McCright and Dunlap 2011, McCright et al. 2016). Further, Stanley et.al (2017) finds that right-wing authoritarianism, measured with a 30-item scale, has a strong and consistent impact on climate change skepticism. Another study, find that people who oppose immigration, in general, are also more likely to endorse climate change skepticism, using a nationally representative sample from Norway (Kränge et.al 2019). A study conducted by Andreas Ziegler, using econometric analysis, implies that political orientation in the US is far more relevant for general climate change beliefs and beliefs in anthropogenic climate change than in Germany and China (2017). The study found that US, and German citizens with a conservative, significantly less often support publicly financed climate policy, while US and German respondents with a social-green identification have a significantly higher willingness to pay a higher price for climate-friendly products (Ziegler, 2017). Further, the econometric analysis reveals overall that environmental values, which in the study are measured by a New Ecological Paradigm (NEP) scale, are the major factors for climate change beliefs and attitudes in the counties studied, and thus play a more dominant role than political orientation (2017).

More studies underpin knowledge about the relationship between voters' attitudes tied to PRR parties and climate change attitudes. In a study conducted by Gemenis et.al, they surveyed manifesto positions for 13 PRR parties from 12 countries in Europe in the late 2000s. The results found that party positions on this issue are anti-environmental, with four parties in their sample explicitly expressing skepticism and seven silent or ambiguous on the issue. The study found that The British National Party's position was trend skeptical, while the Italian Northern League and the Danish People's Party were attributions skeptical. Most of the manifestos surveyed were also overwhelmingly against environmental taxes. Dunlap and McCright (2011) find that there was a major surge in Republican supporters' climate skepticism at the end of the 2000s. And Hamilton and Saito (2015) find that Tea Party supporters are more likely to be impact skeptics than Republican supporters who are not Tea Party supporters after controlling for other factors. These studies are important because they imply that certain parties attract

people with certain attitudes. Empirical research shows that political parties not only attract voters with similar attitudes, but they are also able to shape the attitudes of individual voters. Voters without strong political opinions tend to adopt the party's attitudes, and then adopt their own viewpoints (Steenbergen, Edward, and de Vries 2007, 17).

Despite the widespread scientific evidence supporting human-induced climate change, climate change denial still occurs and contributes to delaying mitigation efforts. As mentioned above politically right-leaning individuals have been shown to express more climate change denial and oppose climate policies than individuals that lean toward the left. In studies it is important to differentiate the far right from the mainstream right, they differ in some important domains – most importantly in their focus on sociocultural issues and antiestablishment rhetoric instead of traditional socioeconomic issues (Jyhlä, Strimling, and Rydgren 2020). Previous studies have to a great degree focused on the mainstream right, which as mentioned differs from the far right (both the radical and extreme) in some important domains. Jyhlä, Strimling, and Rydgren investigated correlates of climate change denial among supporters of the Sweden Democrats and a more mainstream right-wing part – the Conservative Party, Moderaterna- and a mainstream center-left part – Social Democrats – in Sweden. Across the analysis, distrust of public service media, antifeminist attitudes, and socioeconomic right-wing attitudes outperformed the effects of anti-immigration attitudes and political distrust in explaining climate change denial perhaps because of a lesser distinguishing capability of the latter-mentioned variables (2020). Their results suggest that socioeconomic attitudes, which are characteristic of the mainstream right, and exclusionary sociocultural attitudes and institutional distrust are important predictors of climate change denial and are more important than party identification. This is central because it suggests that climate change denial is more linked to attitudinal variables than to the parties themselves.

The existing theoretical literature has explored the relationship between the populist radical right and the rejection of the climate change agenda, particularly in terms of recognizing climate change as a significant problem requiring mitigation (Lockwood 2018). There is substantial evidence regarding the positions of populist radical right parties and politicians on the science, denial, and policy dimensions of climate change. Research on the links between attitudes consistent with the ideological component of populist radical right parties and attitudes toward climate change remains limited. The empirical knowledge regarding which ideological orientations and attitudes associated with the populist radical right have the most influence on

climate change views remains narrow. This knowledge gap is especially notable in the Scandinavian context, where populist radical right parties have experienced significant success in recent decades (Inglehart and Norris, 2016). These countries are central to understanding the increase of populist radical right parties and attitudes in recent years. Only a few studies have sought to examine the three main features of the populist radical right and compare their effects on climate change attitudes. Investigating these relationships is crucial, as populist radical right parties can have an impact on climate change-related policy decisions and actions. Understanding their attitudes can inform policy decisions and actions that promote sustainability and climate justice. This study aims to contribute to the field by considering all the variables associated with the populist radical right and investigating whether these attitudes are associated with climate attitudes.

3.Theoretical Framework

This chapter will present, describe, and define central concepts, before theoretical assumptions and hypotheses will be presented. Following an introduction to populist radical right parties, typical attitudes consistent with populist radical parties will be presented. From there, climate change attitudes and concerns about climate change will be explained, also the relationship between radical right-wing populism and denial of climate will be explained.

3.1 The Populist Radical Right

Since the mid-1980s, a proposed populist radical right party family emerged in Western Europe. Even though the labels might vary – as “far-right”, “radical-right”, or “right-wing populist” – most scholars agree upon the basic features of this party family (Jupskås and Jungar 2014). The many different terms are partly a consequence of the fact that contrasting to other party families, populist radical right parties do not self-identify as populist or even (radical) right, according to Cas Mudde (2016). Most authors define the essence of the “populist radical right” in rather similar ways. According to Mudde, this is in part a consequence of the professionalization of the study of the populist radical right or the increasing dominance of social scientific studies (2016). Today, populist radical right parties share a core ideology that combines, at least, three features: authoritarianism, nativism, and populism. Individual parties might have additional core features, but all members of the party family share these three features, and these three features constitute a part of their ideological core (Mudde 2016). However, different parties may express their ideology in different ways, for example by attacking different minorities and elites. Furthermore, it is central to distinguish between radical-far right and extreme right, where the main difference is rooted in the view of democracy. The extreme right criticizes democratic ideas, majority rule, and political equality. Radical- right-wing support democracy as a political form of government but challenge fundamental liberal democratic institutions such as minority rights, separation of power, and legal certainty (Mudde 2019, 30).

The nativist element of the populist radical right entails a combination of nationalism and xenophobia (Mudde 2016). It indicates who is part of the pure people and who can be included in democratic decision-making (Ivarsflaten, Bjånesøy, and Blinder 2019). The ideology rhetoric holds that states should be inhabited wholly by members of the native group (“the nation”), and the nonnative elements – whether persons or ideas – are essentially threatening to the homogeneous nation-state. The criteria of who belongs to the nation will vary based on cultural

provisions such as language, ethnicity, religion, and nationality (Mudde 2007, 19). Nativism is mostly directed at “immigrants”, i.e., guest workers or refugees in Western Europe and “indigenous minorities” in Eastern Europe. Ethno-nationalism was in the late 1980s framed with economic concerns. But, particularly since the terrorist attacks of 9/11 West European populist radical right parties shifted to a more ethno-religious discourse with strong liberal democratic and security concerns (Mudde 2016). Therefore, those who are not a part of the nation will pose a fundamental threat to the people and the nation-state and should therefore not be included in decision-making. The nation-state should remain as ethnically and culturally homogenous as possible. This implies very strict assimilationist, anti-immigration policies and profound criticism of multiculturalism. Eger and Valdes contend that, for contemporary radical right parties, nationalism is the primary political concern and the lens through which policy preferences are determined (2019). Issues important to radical right parties are consistent with the notion that the autonomy and sovereignty of modern nation-states are threatened – economically, politically, and socially. Therefore, opposition to immigration is consistent with the idea that diversity threatens the nation-state (2019).

Populist radical right parties are known for their authoritarian appeal and a strong emphasis on legal certainty on sociocultural issues (Immerzeel, Coffé, and van der Lippe 2015, 266). Authoritarianism refers to the belief in a strictly ordered society, in which infringements of authority are to be punished strictly (Mudde 2016). This transforms into strict law and order policies, which call for more police with greater competencies and less political involvement in the judiciary. This position also tends to include pro-military, traditional family values, and skepticism toward gender equality and gay rights (Jungar and Jupskås, 2014). Social “problems” are often being criminalized – such as drugs, abortion, and prostitution. And the parties calling for higher sentences, more discipline in schools, and fewer rights for criminals are typical characteristics (Mudde 2016). Often immigration issues and crime are directly connected, such as used in the slogan “more safety, less immigration” of the Dutch Party for Freedom (PVV) (2016).

Populism is not a well-defined theoretical concept, but there is still some scientific consensus about its main features. It is an ideology that believes society to be separated into two homogeneous and antagonistic groups, namely “the pure people”, and “the corrupt elite” (Mudde 2016). Further, it claims that politics should be an expression of the *volonté Générale* (general will) of the people. Populist radical right politicians state to be “the voice of the people”

and accuse the established parties of being in cahoots with each other. Populism indicates that anti-elitism and political distrust are important characteristics (Inglehart and Norris 2016). Populism reflects deep cynicism and resentment of existing authorities, whether it is big banks, big businesses, multinational corporations, mainstream media, elected politicians, government officials, intellectual elites, or scientific experts (Mudde 2021). What makes people part of the elites, according to populists is having the wrong values. Which today is often captured by terms such as “cosmopolitanism”, particularly among right-wing populists (2021). This conceptualization of populism has led scholars to describe it as a “thin-centered” ideology. It must be filled with more concrete ideological content to become politically significant. It is often referred to as a “thin-centered” ideology because populism alone does not alone tell us much about what type of world populists want. At the same, Mudde considers it more an ideology, still limited, than just a “style” or “discourse” since it is more than just an instrument for coming to power (Mudde 2021).

The three different features are often interconnected in the rhetoric of the parties. All PRR parties devote disproportionate attention to crimes by “aliens”. Often, nativism and populism are connected, as mainstream political parties are accused of ignoring immigrant crime and of approving immigration at the expense of the native people (Mudde 2016). It is the combination of all three ideological features that make a party, populist radical right. Unlike the extreme right, the populist radical right is democratic. They accept majority rule and popular sovereignty. The populist radical right is in essence monist and sees the people as morally and ethnically homogeneous and considers pluralism as undermining the (homogeneous) “will of the people” and protecting “special interests” like minority rights (Mudde 2016).

Radical right-wing populist parties have increased their support in Europe in recent decades (Mudde 2013, 4). Certain parties have been able to mobilize a larger electorate, thereby gaining increased political influence and importance. It has been argued that the “winning formula” of the radical right is based on a cross-class appeal that combines economically rightist and socially conservative or authoritarian positions, and that radical right parties must do two things to be successful electorally. First, an anti-immigrant stance is needed to appeal to working-class voters, who are discontented with the cultural and economic implications of globalization. Secondly, these parties must also champion small businesses through support for free market economics (Eger and Valdes, 2019).

3.2 The Relationship Between the Populist Radical Right and Climate Change Skepticism.

3.2.1 Hostility to Climate Action

While many politicians and scholars agree on the need of taking mitigation actions, not all citizens share this sense of urgency. Consequently, given the knowledge that public support is an essential condition for far-reaching climate and environmental policies (Anderson et.al 2017), people's doubt toward climate change and its implications has the potential to limit progress. Climate skepticism can be defined as a lack of acceptance of the seriousness of climate change and its effects, as well as a lack of belief in anthropogenic global warming. Thus, skepticism generates doubt regarding the gravity of climate change, the necessity of environmental action, and the potential consequences (Huber 2020). Understanding citizens' perceptions of the scope and seriousness of climate change are essential. In democracies, citizens can pressure governments to act on climate change and environmental degradation, or governments may seek to induce pro-environmental behavior through policies (Huber 2020). Attitudes and public perceptions are critically important to both the demand and the supply side of the transition to a low-carbon economy (Poortinga et.al 2011). On the demand side, perceptions of the need to act against climate change, and of the capacity to act on this, can be key precursors to personal behavior change and compliance with wider policies aimed to motivate such changes. On the supply side, public acceptance of new and innovative energy facilities such as new grid infrastructure and power stations will play a key role (2011).

When studying skeptical beliefs among the public, it must be noted that skepticism is an imprecise term that has numerous meanings, given the complex multi-faceted nature of the climate debate (Poortinga et.al 2011). Stefan Rahmstorf (2004) distinguishes between trend, attribution, and impact skepticism, reflecting skepticism based on whether people think climate change is occurring, is human-induced, and is harmful. While most people express belief in global warming, the role of humans causing it, and its harmful impact varies. A share of people in many countries will still express some form of skepticism or doubt. Attribution skeptics can be defined as those who accept that the world's climate may be changing but do not think that it is caused by human activity. Impact skeptics may agree that the world's climate is changing as a result of human activity, but do not think it will lead to substantial detrimental impacts (Rahmstorf 2004).

Lockwood (2018) provides a good theoretical assessment of the role of right-wing populism and climate skepticism. He divides it into a structuralist or an ideological approach. According to a structuralist approach, populist radical right parties gain traction within the electorate, among those who are marginalized politically and economically – which is “left behind” by globalization. While structural factors may have fueled the rise of populist radical right parties, Lockwood argues that the effects on public views on climate change are more likely due to the ideological content of the populist radical right (2018). Lockwood argues that right-wing populists are socially conservative and hold strong nationalist values. Consequently, because climate policies threaten national sovereignty, right wing-populists resist them (Lockwood 2018). Although these arguments are plausible in and by themselves, Lockwood combines populism with nativism and authoritarianism, in line with Mudde’s definition of populist radical right parties (Mudde 2007). This is also the case for this thesis, where populist, nativist, and authoritarian attitudes toward climate change are analyzed.

3.2.2 The Populist Element

The effect of right-wing populism on climate change is the subject of Matthew Lockwood’s “Right-Wing Populism and the Climate Change Agenda “(2018). Lockwood explains why populists are so often climate skeptics and hostile to climate policy. His explanation is consistent with the view that structural factors have fueled the rise of PRR parties (Lockwood p.721, 2018). Lockwood provides a theoretical assessment of the role of right-wing populism and climate skepticism: explanations of populists’ opposition to climate change policies might adopt a structuralist or an ideological approach. It is argued that populists appeal most to lower-skilled males, that feel most negatively affected by globalization. Climate policies due to climate change will directly erode job security in low-skilled manufacturing jobs because these are most directly targeted by far-reaching regulations. In the second approach, Lockwood argues that right-wing populists are socially conservative and hold strong nationalist values. And since climate policies threaten national sovereignty, right-wing populists will to a higher degree resist them (Lockwood 2018).

Huber emphasizes literature that argues that individuals will use information about the sender of a message to infer information about a proposal (2020). For example, a message sent by someone perceived to be untrustworthy will receive little attention or result in an unfavorable message evaluation (Aroe 2012). Then, whether people agree or disagree with a statement's

conclusion depends on how they perceive the source. Huber further argues that this is precisely what happens with populists and their attitudes toward climate change and environmental degradation (2020). Since the nature of climate change and its impact is abstract and technical, populists can easily portray them as elite-driven and detached from citizens' everyday needs. Since the topic itself is elite-driven, it works as a prime example of post-materialist issues and the interest of better-educated and richer citizens (2020).

Some argue that subjective concerns about the current economic situation and future economic outlook form individuals' preferences and worldviews. There is a rich literature on the political effects of self-perceived job insecurity showing that subjective insecurities reduce trust in political institutions and give rise to anti-immigrant attitudes (Lübke 2022). Because it necessitates a significant rebuilding of the current economic system, climate change mitigation - due to the seriousness of climate change- may be seen as a danger to the current socioeconomic security. Especially, individuals employed in sectors dependent on fossil fuels might be more concerned about the stability of their current jobs. Denying climate change might thus be motivated by a desire to protect one's economic interest and maintain the status quo (Lübke 2022). It is, therefore, possible to feel a distance and mistrust towards politicians and large international organizations. The public is overtly excluded from decision-making in international fora such as the UNFCCC and the associated Conference of the Parties (COP), where the scope of the climate crisis and international climate policies are mainly discussed. Characteristics like these make the climate change issue an ideal target for populists, who easily can perceive it to be part of an elite-driven, cosmopolitan agenda (Lockwood 2018) that has lost touch with citizens' everyday needs and preferences and will therefore to a higher degree be rejected when people perceive climate measures as a solely elite-driven concept. Huber, therefore, argues that individuals who exhibit strong populist attitudes feel under-represented in the climate change agenda (2020).

The elite-driven top-down discourse in its current form will possibly face difficulties in seeking to convince people with populist attitudes to accept unpleasant alterations to their daily life. The psychological distance of the climate change issue increases due to the international nature, temporal vagueness, and uncertainty of both issues (Spence et.al 2012). Therefore, if populists portray combating climate change as an elite project, populist attitudes could be related to the dismissal of environmental protections. If people mistrust the political elite and sense a moral struggle between "the elite" and "the people" – therefore exhibit populist attitudes – they are

more likely to reject a united elite position and take a more negative stance on the relevant issue. All forms of public resistance represent significant barriers to effective climate change adaptation and mitigation policies (Krange, Kaltenborn, and Hultman 2021).

The populist radical right movement frequently challenges the changes and transformations suggested by more liberal forces and well-established institutions. In many cases, some of the core missions of the populist movement are the opposition to scientific knowledge and formal governance (Krange, Kaltenborn, and Hultman 2021). Given the somewhat unclear and diffuse nature of climate change's impact, people are in some way left to rest their opinions in the trust they have for various institutions and experts that communicate about climate change and implement activities that will affect people's everyday life in the future. Populism and the radical right will therefore often express what they perceive as a relative deprivation of societal goods compared to other groups, since they perceive that their everyday life may be threatened if liberal forces succeed with their climate change policies, for example in cases of jobs, gas, and electricity prices. In this sense, it can be argued that both economic hardship and deprivation can be a driver of climate change skepticism, but also the internalized fear of losing one's social status that makes people more prone to support populist parties and ideas.

The top-down logic of climate policies might also challenge public support. Elites negotiate international treaties in the hope that individuals will recognize these signals of encouragement to adapt their attitudes and behavior, but even though they seek to increase awareness of climate change, the public is largely excluded, which can lead to more anti-elitism affecting support for these policies in a populist backlash (Huber 2020). Communication on climate change and environmental protection is to a high degree driven by top-down elites and big international organizations, and the nature of this policy field could therefore result in rejection by individuals with populist attitudes. Because of that, it could be argued that higher levels of populist attitudes are associated with climate skepticism.

H1: Individuals who exhibit stronger populist attitudes are more likely to be skeptical about climate change.

3.3.3 The Nativist Element

Environmental issues concerning the climate can be seen as today's paradigmatic transnational issue. The transnational character of the climate crisis facilitates a transfer of agency from the nation-state to international bodies – and in so doing, challenges core aspects of the ideology of nationalism (Forchtner and Kølvråa, 2015). The relationship between nationalism and the area a community relates to is mediated by the idea of distinct territories containing distinct people. This involves on one hand an understanding of the state's territory in material terms, regarding finite resources and the people's right to enjoy these. On the other hand, it involves an idea of nature as a deeply symbolic space as well as an aesthetic object (Forchtner and Kølvråa, 2015).

Opposition to immigration and xenophobic attitudes have been related to the concept of relative deprivation, the idea that individuals or groups experience what they perceive as injustice (Walker et.al 2015). This is a feeling of being marginalized or a sense of grievance in a way that is unfair, where one ends up worse than comparison groups, and a strong feeling that multiculturalism and pluralist ideologies can threaten identity and ethnicity and therefore will exacerbate in and out-group distinctions (Krange, Kaltenborn, and Hultman 2021). This resentment and anger from perceived deprivation can lead to social protest and resistance. The concept is usually applied in a context where groups or individuals can assess the fairness of an outcome relative to an imaginable outcome. Outcomes are classically distributive, for example, how will climate change, and its consequences affect access to non-renewable natural resources? The significance lies in the fact that immigration, established elites, and climate change may be perceived as symbolic representations of the political majority, posing a possible threat to the current political and social structure, resulting in a sense of relative deprivation experienced by the populist radical right movement (2021).

The nativist aspect of the populist radical right is embodied by the belief that climate-related initiatives are justifiable solely if they directly or even exclusively benefit the nation and its core constituents (Fraune and Knodt 2018). From the populist standpoint, elites prioritize their interests above those of the nation and its people. Consequently, populist radical right parties attribute the subordination of national sovereignty and interests of international cooperation concerning climate change to mainstream political parties and elites (2018).

According to Rydgren, populist radical right parties build upon the idea of ethno-pluralism, stating that different people must preserve their exclusive national characteristics. Therefore, immigration is the most salient issue. By encouraging the idea of national preference, ethno-pluralism will also influence other socio-economic policies (Rydgren 2017). Populist radical right parties are united by accusing mainstream political parties and elites to subordinate the national authority and national interest in international cooperation in the context of climate change (Fraune and Knodt 2018). The argument is that through international cooperation, the cosmopolitan political elite promotes universalization and therefore threatens the values of ethno-pluralism. Moreover, an idea is promoted, that international agreements on climate change policies are commitments to national policies that require a fundamental restructuring of the economy and human behavior and whose benefits do not necessarily accrue to its core people or the nation directly or even exclusively (2018).

Häusermann and Kriesi et.al (2015) posit a second wave of cultural cleavage, which has been associated with the processes of globalization, and greater immigration, involving a cleavage between universalistic values and those strongly attached to the idea of the nation. Suspicion of new ideas and influences does not fit well with the challenges posed by climate change and the transformation they require, where extreme nationalism is incompatible with the multilateral cooperation needed for collective action (Fiorino 2022). Nationalism and climate action can be explained by a suspicion of foreign influence. Whereas the idea that foreign actors do not recognize or promote the will of the people is promoted. Because climate change inevitably is addressed in global forums, multilateral institutions and foreign interests are easy goals. Furthermore, another dimension is exaggerated worries about a loss of national sovereignty to international organizations or other nations. This view was also expressed by former US president Donald Trump who stated disapproval of an intent to withdraw from organizations such as the UN, NATO, and World Health Organization (Fiorino 2022). They are perceived as being hostile to national interests and as taking control further away from the people. Therefore, hostility to climate action expressed by people with attitudes linked to radical right parties can be seen as an expression of hostility to liberal, cosmopolitan elites. Whereas many people portray mitigation policies as harmful to ordinary voters, who could face high energy costs and fewer job prospects. Therefore, climate change and the action following are seen as harmful, expensive, and contrary to national interests (Fiorino 2022). Because of this, it can be argued that higher levels of nativist attitudes are associated with climate skepticism.

H2: Individuals who exhibit stronger nativist attitudes are more likely to be skeptical about climate change.

3.2.4 The Authoritarian Element

Authoritarian and populist political configurations have emerged and grown a lot in support over the past decade. Many of these parties and politicians share numerous common features. One is the support for a selection of authoritarian leaders who rise to power by exciting fear and promising simple, direct, and sometimes brutal action to strengthen and protect the nation (McCarthy 2019). Stanley et.al (2019) explains authoritarians as those who favor conforming to group norms and the order of authority figures and punishing those who do not conform. The authoritarian, nationalist, and socially conservative value dimensions of the populist radical right, are important because they fill out the “thin” core ideology of populism and give substance to the populist categories of “the people, elites, and minorities”. However, there is less literature on the relationship between the authoritarian component of the populist radical right, compared to the other key components. Given that authoritarianism is a significant component of the populist radical right, investigating attitudes towards climate change is considered critical to obtain a comprehensive and nuanced comprehension of the phenomenon. Lockwood emphasizes the importance of values for climate skepticism in the social psychological literature, which often uses the liberal-authoritarian values scale and where skepticism is associated with authoritarianism (2018). Populist radical right parties combine nationalistic and authoritarian values with anti-elitism, and from there produce hostility to climate change as a cosmopolitan elite agenda, along with a suspicion of both the complexity of climate science and policy and the role of climate scientists and environmentalists (Lockwood 2018).

As mentioned earlier, Häusermann and Kriesi (2015) present two waves of cultural cleavage. Where one starting in the 1960s involved the emergence of liberal values on attitudes towards authority, law and order, women’s rights, homosexuality, and social tolerance, which came in conflict with more traditional authoritarian values. From there, the second wave has been associated with processes of globalization, including greater immigration. This wave involves a cleavage between those holding cosmopolitan or universalistic values and those more attached to the idea of the nation. The climate skepticism expressed by supporters of PRR parties and movements can be seen as an expression of hostility to liberal, cosmopolitan elites, rather than an engagement with the issue of climate change itself (Lockwood 2018). Cosmopolitanism is

thus “anathema” to PRR movements and supporters. Lockwood argues that although it is not the primary target of current populist concern in most cases, climate change is the cosmopolitan issue par excellence.

It exists theoretical reasons that the perceived threat from environmentalists, as a social group or category, might explain why some ideologies predict climate change attitudes. Whereas, populists characteristically display authoritarian leanings, favoring the personal power exercised by charismatic and strong leadership which is thought to reflect the will of the people. This can create a ground form of populism that assures a simpler vision of direct democracy, with government by the people, instead of by experts, politicians, or bureaucrats (Canovan 2001). And preferred form of direct forms of majoritarian democracy for the expression of the voice of the people, through referenda, opinion polls, and plebiscites, rather than institutional checks and balances and the protection of minority rights built into processes of representative democracy.

Today, in modern societies policymaking involves distributional trade-offs, technical complexities, and compromises between different groups. The climate change issue involves all these elements but also has additional features of high levels of uncertainty, impact across multiple sectors, long time frames, international collective action problems, and diffuse benefits. All of these add to the opaqueness of the relationship between actions and outcomes (Lockwood 2018). Moreover, the main framework for climate policy is constructed by distant international processes of science, like the Intergovernmental Panel on Climate change, and complex negotiation, such as the UN Framework Convention on Climate Change, and in some cases through delegation to technocratic bodies (2018). These features make it particularly aggravating for populist radical rights ill-disposed to such policy on values grounds. These institutions together with cosmopolitan ideas emphasizing open societies and borders, combined with liberal values that challenge the authoritarian component of populism, emphasizing the importance of horizontal checks and balances in the institutions of representative democracy, protection of minority rights, tolerance of social, intellectual and political diversity, the contribution of scientific expertise for rational policymaking, and the post-war architecture of global governance and international cooperation (Inglehart and Norris 2016).

Furthermore, it is shown that under conditions of perceived threat, group membership has shown to become progressively important for people (Fritsche et.al 2012). Under threat, people are therefore prone to defend and support their ingroups and to act on the ground of ingroup norms. Authoritarian tendencies have been described as a central pattern inherent in group processes, including conventionalism, authoritarian submission, and authoritarian aggression, which may serve the establishment or maintenance of ingroup integrity (2012). Therefore, individuals' concerns about maintaining or establishing normative consensus in groups are assumed to motivate individual authoritarian attitudes, such as acting in line with ingroup norms, obeying institutions or people that promote norm compliance, and punishing those who are breaking the norms (2012). A perceived threat has been identified as one of the major antecedents of authoritarian attitudes in individuals. Archival studies have provided evidence that in periods of high threat authoritarian tendencies become more widespread as compared to periods of low threat (2012). Climate change can be assumed to threaten people and the fulfillment of their needs in various regards. Authoritarian and conservatives are more sensitive to threats, particularly threats to the social order and status quo, and where climate policies and changes can conjure up an image of a threat (Hoffarth and Hodson 2015). A perceived threat that climate change, and the policy changes it may pose can for many mean a loss of jobs. People can therefore believe that protecting people's jobs is more important than protecting the environment. This is important because economic concerns are central to the political discourse, where maintaining the status quo rather than enacting restrictions, change or regulations are important (Hoffarth and Hodson 2015). Not believing in the scientist or not believing in the dangers of climate change may then be easier, than dealing with the consequences of more mitigation policies.

Right-wing authoritarianism represents views relevant to being traditional in attitudes and more aggressive against norm violators. Right-wing authoritarianism represents an aspect of right-wing ideologies linked to opposition to change and reflects a dimension of conservatism. That the climate is changing, which in turn leads to changes in political decisions and the status quo, may feel threatening for people with more conservative and authoritarian values, and which are less open to new ideas. For reasons like this, people with a greater motivation to defend and protect the status quo can be pointed out as a reason why people with more authoritarian attitudes may have a higher likelihood to oppose climate change policies and to be more sceptical towards it. And where the changes required to mitigate emissions challenge an already "fixed" worldview that emphasizes hierarchy, tradition, and connection with the established

order. The challenges posed by climate change and the transformations and policies they need may not be well suited for people with attitudes that are suspicious of new ideas and influences, with conservative and authoritarian attitudes. It is worth mentioning that there is limited literature and research available on the relationship between authoritarian attitudes and climate change. Therefore, the hypothesis may be less well-defined and supported compared to the existing literature in this field. Nevertheless, according to the literature that exists in the field and the assumptions above, it may be argued that higher levels of climate skepticism are related to high levels of authoritarian attitudes.

H3: Individuals who exhibit stronger authoritarian attitudes are more likely to be skeptical about climate change.

4. Empirical Approach

The purpose of this chapter is to present the research design used to analyze the research question and hypotheses. The thesis aims to investigate what can explain why the populist radical right is to a higher degree more climate skeptical, by looking at key elements of the populist radical right. The underlying hypotheses aim to examine whether there are some links between attitudes consistent with key ideological components of the radical right and climate change attitudes. To explore this, the study utilizes survey data, which provides a robust foundation for investigating the research question as the hypotheses specifically focus on the attitudes of individuals drawn to the populist radical right. The different methodological choices will be elaborated on and accounted for below. After a discussion of the case selection, the data source will be described, where the data units, timeframe, and variables used will be explained. The validity and reliability are relevant to the thesis will be assessed throughout.

4.1 Case Selection

As previously mentioned, certain populist radical right parties have been able to mobilize a larger electorate, thereby gaining increased political influence and importance. Therefore, it is of academic relevance to examine the electorate and the attitudes that align with these parties. Sweden is a particularly interesting case to study due to its intricate history of populist radical right parties. The country stands in contrast to the rest of the Nordic region, in the sense that it experienced a delayed emergence of populist radical right parties (Rydgren 2008). For a long time, Sweden was seen as a deviant case in terms of radical right electoral success. The current populist radical right party – the Sweden Democrats (SD) – was founded in 1988 as a direct successor to the Sweden Party, which was a merger between the Swedish Progress Party and the BBS (Keep Sweden Swedish). The party was until recently considered to be more extreme right and militant than other PRR parties (Jungar og Jupskås 2014).

The party is usually placed within the group of radical right parties, but its origin, and history are more compromising than most other parties in this group (Bolin, Dahlberg, and Blombäck 2023). The Sweden Democrats, unlike many other radical right parties, have roots within outright racist movements. However, the party has in recent years gained popular support (Rydgren and Tyberg 2020). In 2010 the party managed to win parliamentary seats for the first time (Heinze, 2018). Since, the party's presence on the political stage it has shown no signs of

slowing down. Only four years after they gained their first seats in parliament, they succeeded in not only defending their spot but more than doubling their representation (Heinze 2018).

As the third-largest party in the parliament, the SD has become an important political player. The party has gained powerful de facto leveraging status in Swedish politics (2018). The party program is still dominated by nationalism and a quest for lower immigration and to make Sweden less ethnically diverse. Empirical studies suggest that voters support the SD primary because of the immigration issue, with over 90 percent of those voting for the party wanting to reduce immigration (Rydgren and Tyberg, 2020). Another characteristic of the Sweden Democrats voters is their low trust in the media, political parties, and politicians (Rydgren and Tyberg, 2020). This programmatic core is embedded in a populist framework, where the “common people” is pitted against political and cultural elites (Elgenious and Rydgren, 2019).

At the same time the Special Eurobarometer 513 -in the national analysis for Sweden- reveals that over a quarter of respondents in Sweden (43%) consider climate change to be the single most serious problem facing the world. Furthermore, the European Investment Bank shows in their fourth edition of the EIB Climate Survey -an in-depth survey of how citizens perceive climate change- that 54 percent of Swedes feel that climate change affects their everyday life. There is indisputable evidence that a significant number of Swedes hold a belief in climate change and perceive it as a pressing concern. Behind this clear consensus, however, there are large differences in terms of concerns and expectations regarding the climate issue between younger and older, men and women, different socio-economic groups, and between the left- and right-wing political specter (EIB Climate Survey 2021). Furthermore, Sweden invests heavily in renewable energy, and by 2020, 54 percent of Sweden’s power came from renewables (World Economic Forum 2020). Additionally, the energy generation in the electricity and district-heating sectors is almost entirely free from carbon emissions (Sarasini 2009). Moreover, the electricity supply is almost entirely carbon-free, owing largely to the fact that nearly all of Sweden’s electricity is generated from hydro and nuclear power (2009).

Overall, few people in Sweden do not believe in climate change, and many consider it a major concern. At the same time, the Sweden Democrats are increasing in scope and political influence. The party takes a clear profile on gas and petrol prices, vehemently opposing high fuels costs, which constitutes one of their core issues (Sverigedemorkaterna.se). Among other things, they state that high fuel taxes do not benefit the climate and hit hard on all those living

with smaller financial margins, like families with children and farmers (Sverigedemokraterna.se). Furthermore, SD parliament member Elsa Widding, who has profiled herself on climate issues, has stated that there is no scientific evidence that there is an ongoing climate crisis (stv.se 2022). She is not alone in having that view among her party colleagues. In a survey sent out by SVT news to all members of the Riksdag, one question asked “The UN Secretary-General says that the world is on fire and that there is an ongoing climate crisis. Do you agree with that statement?”. The participation was low, but six Sweden Democrats answered that they "do not agree at all" or "partially disagree" (stv.se 2022). SD's party leader, Jimmie Åkesson, is also skeptical about whether the world is in a climate crisis. He said, “I have not seen any scientific support for the fact that it is like this here and now”.

Effective solutions to the climate crisis in modern democracies depend on broad support in the population, which in turn requires people to consider the issue as real and important. Sweden is a country where one would not expect radical right parties and climate denial to occur. It is a country with high trust, at the top of the democracy score, and with low proportions of climate change deniers and skeptics (Ipsos 2021, FreedomHouse 2023, Eurobarometer). It is quite unlikely that Sweden would have large shares of climate skeptics, which makes the context more compelling considering the potential generalizability of the analytical findings. If the results are applicable to Sweden - a country not typically associated with climate skepticism - the implications may extend to more hospitable settings. Studying Sweden's approach to climate change, and factors related to climate skepticism can lead to useful information for policymakers and communicators seeking to increase public engagement on climate issues. Getting a nuanced and deeper understanding of the issue can help policymakers and researchers understand the challenges and opportunities associated with implementing effective climate policy.

4.2 Data Selection – The European Social Survey Round 8

Initially, the intention and methodology outlined for this thesis involved utilizing the Swedish Citizen Panel Survey, which would enable the examination of potential variations and changes over time. Due to limitations in accessing the panel data of the Swedish Citizen Panel I had to move to other options. Subsequently, attention turned towards the SOM survey, an annual survey conducted by the independent research organization known as the SOM Institute, affiliated with the University of Gothenburg. The SOM survey represents a key component of the institute's research activities, featuring a series of questions posed to the Swedish population, exploring various societal, opinion, and media-related themes (SOM.no). There are several advantages of using datasets specifically collected for the country of interest. It can provide a more accurate representation of the population being studied, as it can account for the unique social, cultural, and political factors shaping behavior and attitudes within that country. A more comprehensive and detailed understanding of the phenomenon can increase the validity and reliability of the findings. In the original dataset, the SOM survey 2020, a lot of people did not get the same or answered the same questions. Upon careful consideration of various options, alternative avenues of investigation were pursued. After consideration, I had to change to another dataset, where I have enough data, which can reduce the potential for bias and improve the validity and reliability of my results.

Therefore, I opted for using survey data from the European Social Survey (ESS), as it has a good population coverage for the variables needed to answer my research question. As the main dependent variable in this thesis are attitudes, employing survey data from randomly selected individuals is the most reasonable choice of data. The European Social Survey is a multi-country survey, with an academic focus, which has been conducted in more than 30 countries to date (ESS.no). It is an academically driven cross-national survey that has been led across Europe since its establishment in 2001. Face-to-face interviews are conducted with newly chosen cross-sectional samples every two years. (ESS). The survey has three main focuses, firstly – to monitor and interpret changing public values and attitudes within Europe, and to investigate how they interact with Europe's' changing institutions. Furthermore, the survey aims to advance and consolidate improved methods of cross-national survey measurement in Europe and beyond. Lastly, the surveys seek to develop a series of European social indicators, including attitudinal indicators. As this thesis seeks to identify attitudes among the Swedish public, this survey will be suitable for providing insight into populist attitudes, and it is able to

examine the relationship between populist radical right attitudes and attitudes towards climate change.

In this thesis, I am interested in attitudes toward climate change. In order to explore the factors contributing to variations in attitudes towards human-induced climate change and concerns related to it within individuals adhering to the populist radical right, the survey utilized for this study must encompass variables that capture both climate change attitudes and attitudes associated with the populist radical right. Here, the ESS survey is one of the most comprehensive surveys available, which included a range of variables related to climate change, and populist radical right attitudes. I opted to conduct my analysis using data from the European Social Survey Round 8.

There are several reasons for this, this round of survey included both great measurements for attitudes toward climate policies and a range of measurements for other attitudes. Furthermore, a newer round of the survey does not include as good measurements of climate change attitudes, as Round 8 does. The 8th round of the Survey includes two modules that were specifically designed to explore public perceptions regarding climate change, energy security, energy preferences, and welfare attitudes in the context of a transforming Europe. The survey also features rudimentary demographic questions related to gender, age, educational attainment, socioeconomic status, and lifestyle. In the eighth round, the period is from 2016-2017 and covers 23 countries. The survey involves strict random probability sampling. The individuals in this thesis are defined as the people in the ESS 8 representative sample of the population in Sweden, in the age range between 15 and 90. Surveys are valuable to provide precise and reliable insight into ordinary people's beliefs and attitudes (Halperin and Heath p.172, 2020). After thoroughly reviewing the questionnaire and methods used by the ESS, it appears to be a reliable source to use. The surveys are based on closed and open-ended questions. Yet the questions of interest for my thesis are closed, which will guarantee that they can be replicated.

4.2.1 European Social Survey Round 8 in Sweden

In this thesis, I focus solely on Sweden as the case. By doing this I can conduct a more in-depth analysis of the factors that contribute to climate skepticism, in this specific context. This includes examining attitudes among the Swedish population that may influence attitudes toward climate change. As mentioned earlier, studying a country with low overall skepticism can be both valuable and insightful. If specific factors are found to be significant drivers of climate skepticism in such a context, there is reason to believe that they can be identified as influential contributors to climate skepticism in other countries as well. Climate skepticism and climate concerns are less prevalent and widespread in Sweden compared to other countries, with populist radical right parties present, which makes it one of the most difficult cases to study. By studying Sweden, where climate skepticism is low, but the presence of a populist radical right party is growing, I can assess the validity of the theory as well as its limits.

The questions included in the interviews are based on ESS' joint survey, and some minor adjustments have been made to make the survey fit into a Swedish context. This is for example the case with questions about political parties, religion, and education, where adaptations are made to fit Swedish society (ESS.no). The sample is representative of all persons over the age of 15 who belong to private households in Sweden, regardless of citizenship, language, and nationality. The individuals participating in the survey are selected by random sampling at all stages of the selection process. The goal is for at least 1.500 individuals to be included in the final sample. This ensures that the data can be used to make inferences about the general population and to minimize the margin of error. ESS round 8 had a response rate of 43 percent, and the total number of units is 1551. The sampling design used was stratified simple random sampling. The strata were the eight NUTS-2 regions in Sweden. The number of people selected from each region was proportional to the population size in the region (ESS.no). Ideally, a panel dataset would be utilized for this purpose. Due to challenges accessing panel data, multiple datasets from different years can be used to ascertain whether variations in attitudes towards climate change are discernible over time. However, as the ESS datasets are conducted by now it is only Round 8 that has a section with questions specified for climate attitudes.

4.3 Dependent Variables

This section discusses the dependent variable in this thesis. I first discuss the dependent variables of the study, operationalizing attitudes towards climate change.

4.3.1 Climate Change Attitudes

The focal point of the dependent variables in this study revolves around climate skepticism. Climate skepticism will here be considered as disbelief or uncertainty concerning (anthropogenic) global warming that espouses a lack of acceptance or awareness of the seriousness of climate change and its consequences, for example, by disbelieving the anthropogenic nature of climate change (Huber 2020). Thus, skepticism about environmental protection generates doubt regarding the seriousness of climate change and the potential consequences of environmental degradation. Building on previous research, I measure climate change skepticism by focusing on the theoretical framework of trend, attribution, and impact skepticism (Rahmstorf 2004). Specifically, I put the focus on attribution skepticism - to what degree people think it is human-induced - and impact skepticism - to what degree it is harmful. The reason for this is that there are few people in Sweden who do not think that climate change is happening, however, attribution and impact skepticism is more prevalent which makes it possible to study. I use items from the ESS asking respondents to what extent they believe that climate change is caused by natural processes, human activity, or both. To add a more nuanced picture of the phenomenon, I also add a dependent variable measuring to which degree a person is worried about climate change or not. Both variables are recorded to be dummy variables, to get a clearer analysis of what indicates climate skepticism and climate concern. I discuss these in detail and provide descriptive statistics below.

Attitudes to climate change caused by natural processes or human activity:

In ESS round 8, respondents are asked what their opinion of the following statement is, “Do you think that climate change is caused by natural processes, human activity, or both?” (ESS 8). To measure if people perceive climate change as real, is thus, operationalized, as an attitude whether people believe is it caused by human activities or not. This measures attribution skepticism. Respondents indicate whether they think it is entirely caused by natural processes or human activity on a scale from 1 (“entirely by natural processes”) to 5 (“entirely by human activity”). For the analysis, this variable is re-coded to a dummy variable. People who have answered 1 “entirely by natural processes” and 2 “mainly by natural processes” are coded as 1

and every other answer is coded as 0. As there are overall few people in Sweden being climate skeptics, the group of those being climate skeptics is relatively small. However, this will lead to a harder test of the hypotheses. Another model is also conducted to also include label 3 “about equally by natural processes and human activity” in the climate skeptical group. This addition aims to ensure that the groups are of a more comparable size. See appendix for full table of the models.

Table 1: Distribution of climate skepticism

Country	Climate skeptical	Not climate skeptical
Sweden	6.7% 105	93.2% 1446

Source: European Social Survey round 8

Attitudes related to concern about climate change: In the ESS round 8, respondents are asked about how worried they are about climate change. The statement relevance here is about their attitudes towards their concern over the impact of climate change. The statement goes as follows “How worried are you about climate change?”. This variable measures the concept of impact skepticism, by measuring the lack of climate change concern among the public. This variable is also coded as a dummy variable where those answering, “not at all worried” and “not very worried” are coded to value 1, and those answering, “somewhat worried”, “very worried”, and “extremely worried” are coded to value 0. This variable adds a more nuanced and comprehensive understanding of the phenomenon. Especially in a country where the overall skepticism towards climate change is low.

Table 2: Distribution of climate concern

Country	Not worried over climate change	Worried over climate change
Sweden	35.2% 546	64.8% 1005

Source: European Social Survey round 8

4.4 Explanatory Variables

In this section, I provide descriptions of the main explanatory variables used in the empirical analysis. These explanatory variables follow my theoretical framework and the hypotheses I seek to test. As such, the main explanatory variables are related to attitudes consistent with political orientation and with key components of the populist radical right - nativism, populism, and authoritarianism.

4.4.1 Measuring Party Identification

To be able to seek out the people who identify with the populist radical right movement and parties, I need to measure political orientation. After considering the data and its limitation, I chose to operationalize political orientation as which political party one feels closest to. In this way, I get to filter out which of the respondents feel the closest to the Sweden Democrats. ESS also ask their respondents which political party they lastly voted for. This could also be used to measure political orientation, but after considering both variables I find asking which party one feels closer to as a better measurement. This variable can provide a more accurate reflection of one's political beliefs. It covers a more overall political identity, rather than just their behavior in an election. It also allows for a more nuanced understanding, as people can identify with a political party without agreeing with all its policies. It is, therefore, in this case, considered to be a more reliable source.

Party Identification: The variable for party identification indicates the respondent's placements by asking "Which party do you feel closer to?". The scale covers all the biggest and most relevant political parties in Sweden. The variable is, for this thesis, coded to a dummy variable. Where everyone having answered the Sweden Democrats is coded 1 and everyone else is coded 0.

Table 3: Percentage of identifying with the Sweden Democrats v. all other parties.

Country	Populist radical right party (Sweden Democrats)	Other political parties
Sweden	8.62%	91.37%
	80	848

Source: European Social Survey round 8

4.4.2 Measures of populist attitudes

According to hypothesis 1, populism will be measured in the empirical analysis. To find a good measurement of populist attitudes it is important to have a good definition. As earlier stated, populism is defined as a thin ideology where society is divided into two homogeneous and hostile groups (Mudde 2007). The common starting point is the people. The people are at the core and the heart of democracy. Populists have a very specific understanding of the people, where the people are viewed as homogeneous, virtuous, and pure. Furthermore, the people represent the backbone of society (Akkerman, Mudde, and Zaslove, 2014). The people are subsequently contrasted with the elite, those who threaten the purity and unity of the sovereign people. The elite is seen as “evil” while the people are seen as “good”. This distinction serves as a defining characteristic of populism (Akkerman, Mudde, and Zaslove, 2014).

It is essential to investigate populism across different political positions to measure the explanatory power of populism vis-à-vis other components of political ideology, such as left-right placement. If individuals distrust the political elite and perceive a moral struggle between “the people” and “the elite” – they exhibit populist attitudes – and therefore are more likely to reject a seemingly united elite position and take more negative stances on the relevant issue (Huber 2020). It is further important to state that populism is not automatically linked to low levels of satisfaction with democracy, it may constitute a breeding ground of populism, but it is not a direct measure of populism among the voting public per se (Mudde 2007, Akkerman, Mudde and Zaslove 2014).

Akkerman, Mudde, and Zaslove (2014) include several items in measuring populist attitudes. Their measurements are explicitly designed to capture individual manifestations of populism, without conflating it with political ideology or other related variables. The items include measures of agreement and disagreement with several questions that tap into the key dimensions of populism; the general will of the people, people-centrism, and anti-elitism. The European Social Survey Round 8 does not provide such precise measurements of populism compared to the Survey used by Akkerman, Mudde, and Zaslove (2014), which would be the ideal way to measure populism. In this thesis, populism will be measured by variables that tap into the populist core and which are the best possible variables available in the survey.

Elitism is a core aspect of populism, particularly the extent to which “elites” should lead the people and focus on strong and decisive leadership as well as a disdain for contemporary

politicians. Politicians can, in the eyes of populists, be viewed as elites, which is detached from the ordinary people. Populist politicians will capitalize on popular distrust of politicians' evasiveness and bureaucratic jargon to their advance. And often pride themselves on simplicity and directness (Canovan 1999). Populists will denounce complicated political procedures and technicalities that only experts can understand. And love distrusts mystification of politicians and political procedures. Researchers have been using political trust as an indicator to explain why people vote for populist parties (Rooduijn 2018). Using political trust implies that those who have a lower level of trust toward political elites are more likely to be attracted to populist parties or politicians (2018). This taps into the anti-elitist component of populism (Geurkink et.al 2019). A lack of trust draws upon a feeling that political elites no longer produce policies that serve the interests of the people (2019). Researchers that have used political trust tend to perceive populism as a protest against the political elite (Rooduijn 2018).

Therefore, a variable measuring the feeling of trust/distrust towards politicians will be included. The variable asks, "Please tell me on a score from 0-10 how much you personally trust politicians". The scale is 0 ("no trust at all") to 10 ("complete trust"). The scale of the variable is re-coded to be reversed to make interpretation of the analysis easier. This means that a higher value indicates less trust in politicians.

It is important to note that this variable does not go into the specific core element of populism. It does not define the people as pure and homogeneous, which is a central element of populism. Furthermore, it does not capture the notion of the general will of the people (Geurkink et.al 2019). Despite the variable's weaknesses, it is among the best variables in the ESS survey measuring populism.

Table 4: Explanatory variable: Trust toward politicians

Trust politicians	Count	%
0: complete trust	11	0.71
1	11	0.71
2	69	4.5
3	223	14.5
4	268	17.5
5	341	22.2
6	206	13.4
7	163	10.6
8	117	7.6
9	53	3.4
10: No trust at all	69	4.5

The populist rhetoric often focuses on increased influence and leadership by the real people, compared to the corrupt elite. Moreover, they frequently prioritize the interests of their own nation over international cooperation. Since Sweden is a member of the European Union, the EU can be seen as an external entity that imposes regulations and rules without adequate democratic input. It can also be argued that the EU is not responsive enough to the priorities and concerns of ordinary citizens and that it favors special interests and elites. According to the national SOM survey from 2018 the largest proportion against Swedish membership in the EU is found among those who support the Sweden Democrats (46 percent against, 22 percent for) (The national SOM survey 1991-2018). Therefore, the variable related to this subject will encompass measures of anti-elitism and perceptions of expert leadership within the context of cosmopolitanism. The variable asks “Now thinking about the European Union, some say European unification should go further. Others say it has already gone too far. What describes your position?”. Also, this scale is reversed, so the scale goes from 0 (“unification goes further”) to 10 (“unification has already gone too far”).

Table 5: Explanatory variable: European Unification

European Unification	Count	%
0: Unification go further	26	1.79
1	21	1.44
2	105	7.2
3	147	10.1
4	182	12.5
5	434	29.9
6	158	10.8
7	167	11.5
8	101	6.96
9	43	2.96
10: Unification already gone too far	66	4.55

4.4.3 Nativist Variables

To examine hypothesis 2 - which postulates empirical expectations for the association between individuals' attitudes towards nativism- the variable of nativism is incorporated into the empirical analysis. Notably, nativism serves as a fundamental component of the populist radical right, as Berntzen (2020) observes. Nativism is described as a combination of xenophobia and nationalism and asserts that the nation-state should only consist of the nativist group, and that other groupings pose a fundamental threat to the homogeneous nation-state (Mudde 2007). Nativism builds on the assumption that there are one native people, whose interests should be prioritized over those of foreigners and minorities. Every branch of nativism has an idea of who belongs to the people and who does not (Betz 2019). People with nativist attitudes will usually describe people as a homogenous entity, with a shared culture, values, and interests, which will distinguish them from others (Betz 2019). Nativism is a particular construction of nationalism that does not focus so much on “external constraints, but rather on internal minorities created by refugees and immigration. For nativists, the challenge to their freedom of sovereignty stems from the arrival and settlement in the country of specific groups of migrants believed dangerous for the preservation of the essence of an already existing “nation” (Guia 2016).

To measure nativist attitudes, I will draw on earlier studies of nativism (Rydgren 2008, Betz 2019, Kokkonen and Linde 2021), and operationalize nativism through a measure that measures attitudes towards immigrants, as the perceived threat from immigrants is at the heart of contemporary definitions of nativism (Guia 2016, Betz 2019). The variable measures this by asking “Would you say that Sweden's cultural life is generally undermined or enriched by people coming to live here from other countries?”. The respondent’s attitude is measured on a ten-item scale, which I re-coded so 0 indicates cultural life is enriched and 10 is cultural life is undermined.

Table 6: Explanatory variable: Country's cultural life undermined or enriched by immigrants.

Immigration	Count	%
0: cultural life enriched	228	14.9
1	154	10.1
2	326	21.3
3	260	17.0
4	147	9.64
5	209	13.7
6	62	4.0
7	64	4.19
8	42	2.75
9	17	1.11
10: Cultural life undermined	15	0.98

4.4.4 Authoritarian Variables

Authoritarian attitudes are prominent in the populist radical right ideology. Authoritarian attitudes are linked to parties with a greater degree of authoritarian solutions to social problems. Furthermore, authoritarian democracy emphasizes the need for strict social rules to safeguard the nation-state’s security (Mudde 2007). To measure authoritarian attitudes, I will draw on a study by Evans, Heath, and Lallje (1996), which measures libertarian-authoritarian values by constructing Likert Scales. To measure authoritarian attitudes, they include questions tapping into authoritarian values by asking about reasonable punishment and sentences.

The variable measuring authoritarianism, in one of the most suitable ways in ESS round 8 asks the respondents to which degree the following statement applies to them. The statement goes as follows “She/he believes that people should do what is what they’re told, and follow rules at all times, even when no one is watching?”. The scale is reversed to go from 1 (“not like me at all”) to 6 (“very much like me”). This variable can be an indicator of authoritarian attitudes since authoritarianism can be characterized by a belief in strict obedience to authority and a greater willingness to conform to established rules and norms. Individuals tend to value conformity and obedience to authority. It should be noted that this is not the best or the only indicator of authoritarian attitudes and that other surveys may have variables measuring other factors such as civil liberties, law, and justice. Which could be included to get a more complete picture of authoritarianism. Nevertheless, the variable included is the most suitable measure within ESS round 8, compared to other variables, to measure authoritarianism.

Table 7: Explanatory variable: Important to do what is told and follow rules.

Do what is told and follow rules	Count	%
1: Not like me at all	70	4.60
2: Not like me	300	19.7
3: A little like me	276	24.2
4: Somewhat like me	368	24.2
5: Like me	382	25.1
6: Very much like me	124	8.15

4.5 Control Variables

In this section, I outline the control variables I include in my empirical analysis and the reasoning behind including them. Control variables are induced in empirical analyses to avoid omitted variable bias. This bias occurs when one or more relevant explanatory variables are excluded from a model, which then can cause the coefficients to be biased. The analysis includes the control variables gender, age, education level, feeling over house's income, satisfaction with democracy, and self-placement on the political left-right scale. These factors are presented in the literature as important indicators of whether one votes for populist radical right parties and predictors of climate change attitudes. The analysis will control for these variables to obtain an improved estimate of the main explanatory variables. For descriptive statistics for all variables see Appendix A: Descriptive Statistics.

Gender: An individual's gender is operationalized as a binary variable. Men are given the value 1, while women are given the value 2. Surveys show that men to a higher degree than women vote for populist radical right parties (Norris 2005). Furthermore, empirical studies have uncovered that women have an equal tendency to sympathize with the radical right-wing, populist ideology, but would rather vote for more established and less stigmatized parties (Harteveld et al. 2015). Concerning the climate issue, studies reveal that women exhibit slightly higher levels of climate change knowledge and concern than their male counterparts, even when controlling for relevant variables, among the American public (McCright 2010).

Age: The analysis will control for age to get a better estimate of the main explanatory variables, as age is found to be related to voting for populist radical right parties. Both younger and older voters vote for populist radical right parties, and there is a large variation between countries (Norris 2005, 146). The variable measures the respondent's age at the time the survey was conducted. In the ESS survey for Sweden, the age of the respondents ranges from 15 to 90 years.

Education: Education level is included due to its relevance to the subject. Surveys show that more men with lower education vote for populist radical right parties (Norris 2005, 143). Studies also show that the effect of education on people's climate change beliefs varies as a function of political ideology: for those on the political left, education is related to pro-climate change beliefs, for those on the political right, these effects are negative or weak (Czarnek,

Kossowska, and Szwed 2020). Furthermore, a citizen's level of education is an important factor for pro-climate change beliefs. Whereas people who are educated tend to be more aware that climate change is occurring and that it is due to human activity (2020). The variable is coded into four categories. First, respondents with finished primary education up to high school or equal are given the value 1. Second those with higher education from university or similar from one up to four finished years are given the value 2. Those with higher education of more than four years are given the value 3. Lastly, those with a Ph.D. or a scientist education are given a value of 4.

Income: Studies provide evidence that income inequality is a relevant driver for the electoral success of populist parties all over Europe (Stoetzer, Giesecke, and Klüver 2021). Another study shows that the "income inequality effect" encourages poor people to vote for populist radical right parties, while it currently discourages rich people from doing so (Joon Han 2016). The literature suggests that people with higher incomes are less skeptical about climate change and environmental degradation (Huber 2020). The variable included is the only variable in the ESS round 8 for Sweden that taps into the subject of the respondent's income. The variable asks how the respondents feel about their household income nowadays. Persons answering "living comfortably on present income" is given value 1. The scale goes up to 4, which indicates "very difficult on present income".

Satisfaction with national government: This variable is included because a correlation has been uncovered between right-wing populist voters and dissatisfaction with democracy and the way government works. (Lubbers, Gijsberts, and Scheepers 2002). The variable measures satisfaction with the national government by asking "Now thinking about the Swedish government, how satisfied are you with the way it is doing its job?" The scale is reversed, so it goes from 0 ("extremely satisfied") to 10 ("extremely dissatisfied").

Placement on the political left-right scale: Self-placement on the political left-right scale is included. The scale goes from 0 (left) to 10 (right). The variable is included because people can identify themselves as to the right in politics but not want to identify to a populist radical right party. And to be able to investigate whether self-placement on the political scale surpasses identification with a populist radical right party in predicting climate change attitudes.

4.6 Model Choice - Binomial Logistic Regression

In my thesis the dependent variable is coded to a dummy variable, indicating the people who are climate change skeptics and those who are not. From the nature of the variable, climate skeptic in this thesis is considered those who don't believe in the anthropogenic nature of climate change. This is also present in the climate change concern variable. Those who are not worried about climate change are coded 1 and those who are coded 0. From this, the model choice follows the binary nature of the dependent variables. A logistic regression analysis is preferable when the dependent variable is dichotomous, with mutually exclusive values. The method can predict attitudes toward climate skepticism by testing the hypotheses on a dichotomous variable, in this way it is possible to examine how authoritarian attitudes affect people's climate skepticism. When employing logistic regression, one of the trade-offs is that interpreting the results can be challenging (Skog, 2016, p. 358). To address this, the natural logarithm can be used to recode the dependent variable, allowing for the antilogarithm of the logit to be taken and the odds ratio to be calculated. The odds ratio reflects the extent to which the odds change when there is a unit increase in the independent variable, indicating the percentage increase or decrease in the odds of a respondent being a climate skeptic (Skog, 2015, p. 365). Thus, the results of this study are presented in the form of odds ratio.

4.7 Missingness

In this section, I address the issue of missing data on to the variables utilized in my analysis and describe the approach taken to handle such missingness. It is common for surveys to have incomplete information from respondents, as not all variables can be obtained from every participant. Missingness in variables is a problem because nearly all standard statistical methods presume that every case has information on all the variables to be included in the analysis (Allison 2002). In the ESS round 8, the codebook and dataset are common to all forms. For some variables the following missing values have been assigned; 66: not applicable, 77: refusal, 88: don't know, and 99: no answers. These values have been removed from the variables included in the thesis. Out of the variables I use from the ESS, the variables that contain the most missingness are those related to which political party one feels closer to, as well as the question asking about EU unification, and placement on the left-right scale (ESS.no) It can be important to have in mind that the phenomena of party identification can be seen as controversial, which can cause people to refuse to answer the question at all. Alternatively, individuals who possess limited engagement with political parties may have responded "don't know" to the question. It is also important to consider the mechanisms behind the missingness of the data. To handle the missingness of my variables chosen from the ESS round 8 I choose listwise deletion. Using this method can cause biased conclusions, and it can exclude a fraction of the original sample (Allison 2002). However, by focusing on cases with complete information I can better avoid potential biases or distortions that may arise from imputing values. Therefore, in my approach, all cases with any missing observations are dropped from the analysis. The analysis is then based on the remaining data.

4.8 Validity of Empirical Approach

In this section, I discuss the validity of the empirical approach. First, the overall internal and external validity will be discussed. Second, I will go into measurement validity, as this is important to consider when employing survey data. The discussion will detail measurement validity as it pertains to measuring attitudes and political orientation.

4.8.1 Internal and External Validity

The internal validity of the results is partially dependent on the strength of the associations, as well as whether these are significant at the conventional percent levels in social sciences. When estimates reach a level of statistical significance, this indicates that there is a certain type of percentage chance that type-1 errors have happened. Type-1 errors occur when the null hypothesis has been falsely rejected: that the associations identified are random, despite the model reporting statistical significance. Other threats to the internal validity of the results include the operationalization of the variables and choice of model. The model choice, as well as the selection and operationalization of the variables, are discussed in detail in the analysis chapter (5).

In this thesis, observational data, or more precisely, survey data is employed. The European Social Survey presents national data for over 23 European countries, including Sweden. As I seek to draw conclusions from this data, it is essential to consider the limitations of survey data in terms of establishing causality. The European Social Survey does not include panel data, thus, there is no comparative data to measure an individual's attitudes at more than one point in time. It must then be considered that certain variations and changes may apply today. There are also some inabilities when employing cross-sectional survey data in relation to answering causal questions. As the data is cross-sectional, I cannot draw causal inferences based on my results. However, I do find correlations that are consistent with my theoretical expectations, and some of them also show significant results. Hence, provided that the models are accurately specified, the results of my empirical investigation enable me to draw reliable descriptive conclusions. The advantage of using the European Social Survey is that the same questions are asked to all respondents at roughly the same time, this will increase the validity of the survey.

The concept of "external validity" pertains to the extent to which the conclusions drawn from the findings can be applied and generalized to a broader context. To put it another way, whether the conclusions apply to similar situations, units, and times (Gerring 2005). The European Social Survey sample from Sweden round 8 includes around 1500 respondents. A large sample will increase the external validity, which makes it easier to generalize to the population (Midtbø 2016). The findings should then be valid when generalized to the population of Sweden. Whether the findings are valid to other countries or other continents, will depend on the specific political and climate change contexts of those regions. Or if these countries share similar characteristics as Sweden, by being a country with overall few climate skeptics, but with a rise of a populist radical right party. The analysis is based on knowledge about Sweden and the Swedish party landscape, so depending on the specific country at hand, other empirical expectations are maybe needed.

4.9 Measurement Validity

In this section, the possible issues in this thesis regarding measurement validity will be outlined. Firstly, measurement validity will be defined, then measurement equivalence for measuring attitudes will be discussed, with its potential issues and benefits. According to Adcock and Collier (2001), measurement validity refers to the extent to which the operationalization and scoring of cases accurately capture the underlying concept that the researcher intends to measure. Moreover, valid measurement is attained when scores effectively capture the essence of the associated concept in a meaningful manner. Here, this section will discuss measurement validity concerning whether the dependent variables and the explanatory variables sufficiently reflect the concept they are intended to measure. This thesis employs cross-sectional survey data from the European Social Survey round 8 for Sweden. The questions in the survey are closed-ended, which reduces the risk of coding bias. This also increases the reliability of the study since the measurement of the variables is consistent across individuals. Furthermore, an advantage of using self-report surveys, is that the respondents themselves answer questions related to their attitudes. This will also increase the reliability of the answers.

4.9.1 Measuring attitudes

To study attitudes scientifically, one needs to be able to compare them systematically. Attitudes should preferably be measured on a quantitative scale, which expresses the degree of favorability or unfavourability, according to Oskamp and Schultz (2005).

The European Social Survey round 8 measures attitudes towards climate skepticism and climate concern on a Likert scale, where respondents indicate to which degree, they believe that climate change is caused by natural processes, human activity, or both and how worried they are about climate change. The variable concerning to which degree the respondents think climate change is due to human activity is measured on a scale from 1 to 5. Thus, the respondents express their attitude by choosing the statement that fits their views the best. In the same way, attitudes toward climate change concerns are measured. Respondents are presented with five statements and are asked to select the one that best aligns with their opinion. Attitudes are thus, classified into five categories, which measure how concerning the respondents find climate change. Both measurements classify attitudes into two or more categories. Several difficulties may arise when respondents answer questions regarding personal attitudes and beliefs. Consequently, the validity of the resulting attitude scale may be impacted. This can result from how the respondents interpret the attitude question, their retrieval of relevant beliefs and feelings, and their selection of a response based on these beliefs and feelings (Oskamp and Schultz, 2005). Surveys can also be affected by self-representation if the respondents misrepresent themselves for various reasons. This can especially be the case when investigating controversial phenomena (Grønmo 2017, 173). In this analysis, this factor becomes pertinent, considering that populist radical right parties and their associated attitudes are often characterized as stigmatized entities (Harteveld et.al 2017). The same can be said for climate change beliefs. Some problems may occur if, for example, respondents refuse to state which party they voted for, which then lead to a dropout of respondents. This may result in a difference between those who state that they voted for or have attitudes linked to populist radical right parties, and the actual support.

If the dropout of respondents is significant, it can have negative consequences for the external validity of the analysis. Furthermore, respondents can decide on a response without any prior consideration of the issue. Also, response sets may pose an issue. This is when respondents answer the questions in a reliable way, but in a way that is irrelevant to the concept being measured. Two common examples are acquiescence (yes- or no saying) or social desirability bias (Schaeffer and Presser 2003, 80). I am not able to determine how much these issues relate to the ESS dataset. However, I do not believe that this potential problem is more severe in the ESS than in other surveys with similar sampling methods. As the ESS surveys are administered in person by interviewers, using a standardized interviewing approach, the risk of dropouts and misunderstandings is minimized. The interviewers are trained to ask the questions as exactly as they are written (ESS.no).

5.0 Exploring Populist Radical Right Attitudes Toward Climate Change.

To investigate factors and attitudes that can account for the variations in attitudes toward climate change among individuals aligned with the populist radical right, I employ models using the European Social Survey respondents as the units of analysis. The analysis will use two different dependent variables. The first one measure to what degree the respondents think climate change is caused by natural processes or human activity. The second dependent variable asks how worrying the respondents find changes in the world's climate. I conduct separate analyses for each dependent variable. As I seek to identify the explanatory power of key components of the populist radical right, the main variables are attached to nativism, populism, and authoritarian attitudes. It will be performed regression analysis with six groups of variables. First, a bivariate regression is performed with the party identification variable, to check if there is any connection between the populist radical right party identification and the dependent variables. Then, regression analyses will be performed with each of the three groups of independent variables, first the variables measuring populism, then nativism and lastly authoritarianism. The last regression analysis will be performed where all variables are added together. This will be done with both dependent variables separately.

5.1 Results for models with attribution skepticism as the dependent variable

This section will present the results from the empirical analysis performed with attribution skepticism as the dependent variable. As previously mentioned, the results are presented with Odd Ratio. Where the Odd Ratio displays how many times the odds change as a result of a unit increase on the independent variable.

Table 8 presents the six different regression models that were performed with attribution skepticism as the dependent variable. Model 1 shows the independent effect of identifying with the Sweden Democrats on climate skepticism, with control variables. Model 2 presents the variables associated with populist attitudes, more precisely the independent effect of trust in politicians on attribution skepticism, with control variables. Model 3 displays, the effect of attitudes toward further European Unification on attribution skepticism, together with control variables. The nativist element is the focus of Model 4. Here the independent effect of attitudes toward immigration on attribution skepticism is presented, with control variables. Model 5 displays the effect of authoritarian attitudes on attribution skepticism, by using the variable measuring to what degree people think it is important to follow rules and always do what is told, together with control variables. Lastly, model 6 includes all the main independent variables mentioned above, which are attached to H1, H2, and H3, together with control variables.

Table 8: Odds Ratio of thinking climate change is due to natural causes over human activity.

	Attribution Skepticism					
	(1)	(2)	(3)	(4)	(5)	(6)
Identification with the Sweden Democrats	2.328** (0.423)					
Distrust in politicians		0.943 (0.066)				0.892 (0.072)
Attitudes toward European Unification			1.125** (0.052)			1.127** (0.055)
Attitudes toward immigration				1.101* (0.051)		1.095* (0.055)
Important to follow rules and norms					1.247** (0.086)	1.248** (0.087)
Gender	0.362*** (0.302)	0.464*** (0.233)	0.476*** (0.234)	0.451*** (0.236)	0.475*** (0.233)	0.501*** (0.239)
Age	1.020*** (0.008)	1.012** (0.006)	1.009 (0.006)	1.011* (0.006)	1.010* (0.006)	1.008 (0.006)
Satisfaction with the government	0.965 (0.072)	1.061 (0.067)	0.988 (0.056)	0.972 (0.058)	1.026 (0.054)	1.002 (0.070)
Feeling over households' income	1.0189 (0.221)	1.244 (0.158)	1.225 (0.157)	1.205 (0.159)	1.201 (0.157)	1.167 (0.160)
Level of Education	1.028 (0.190)	0.829 (0.161)	0.869 (0.163)	0.917 (0.165)	0.861 (0.161)	0.9109 (0.168)
Self-placement on left-right scale	1.068 (0.059)	1.154*** (0.051)	1.165*** (0.051)	1.161*** (0.052)	1.142*** (0.051)	1.144** (0.053)
Constant	-2.627*** (0.867)	-3.090*** (0.694)	-3.582*** (0.709)	-3.278*** (0.697)	-3.715*** (0.722)	-3.942*** (0.758)
Num. obs.	878	1,404	1,351	1,398	1,394	1,315
Log Likelihood	-215.817	-331.331	-325.840	-326.190	-327.206	-314.128

Note: Logistic model with coefficient presented as Odd Ratio. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

In the models conducted, I analyze the change in odds for being attribution skeptic, related to attitudes attached to the populist radical right. Values above 1 indicate a positive relationship for being a climate skeptic, while values below 1 indicate a negative relationship (Hermansen 2019, p. 201). When explaining the variation in attitudes towards climate skepticism in Sweden, the results from these models indicate that certain explanatory factors linked to the populist radical right show an effect on climate skepticism. The independent variables exhibit variations in effect size. This suggests the need to disaggregate the attitudes and separate them from each other to obtain a more nuanced understanding of the phenomenon when examining why the populist radical right tends to be more climate skeptical. Model 1 displays the independent odds of identifying with the Sweden Democrats and being attribution skeptical. The result of the model further supports the theory that the populist radical right parties are more skeptical about the anthropogenic nature of climate change. The effect of the variable exhibits a positive and significant correlation with being climate skeptical. The result displays that identifying with the Sweden Democrats increased the odds of being climate skeptical by 33 percent. This finding provides empirical support for the theoretical proposition that there exists a positive association between identifying with the Sweden Democrats and a higher level of climate skepticism.

5.1.1 Populist Attitudes

As anticipated by Hypothesis 1, populist attitudes are related to being climate skeptical. H1 predicted that possessing populist attitudes would be linked to a greater degree of climate skepticism. Two variables were utilized to operationalize populist attitudes, one of which captures the level of trust placed in politicians. This variable specifically measures the dimension of skepticism and distrust towards political elites, a salient aspect within the construct of populism. This variable is featured in Models 2 and 6. In Model 2 the coefficient demonstrates a negative effect, indicating that an increase in skepticism toward politicians did not result in a greater likelihood of holding climate-skeptical views. This trend was similarly observed in Model 6, where all the explanatory variables are included. However, the coefficient of the variable in question was not statistically significant, thus precluding the generalization of these results to the wider population. This outcome does not support Hypothesis 1.

The second variable included in the analysis captures the cosmopolitan and globalist dimensions of populism. This variable assesses the extent to which respondents perceive European unification to go too far. In model 3 the effect displays a significant value, where an increase of one believing that European unification has gone too far, corresponds to an increased odds of being an attribution skeptic with 12.5 percent. In model 6, the odds increase by 12.7 percent, emphasizing its importance as an influential explanatory factor even after accounting for other related attitudes. The coefficient of the variable maintains significance at 5 percent in all models and thus provides support for H1. The consistently significant results of the coefficients further strengthen the support for H1, suggesting that the observed connection can be generalized to the entire population of Sweden. Regarding European Unification and the cosmopolitan dimension of populism, the hypothesis is substantiated.

5.1.2 Nativist attitudes

Hypothesis 2 posits that individuals with stronger nativist attitudes are more inclined to hold climate skeptical views. As hypothesized, the coefficients of the variables assessing whether respondents perceive immigration as enriching or undermining Sweden's cultural life are significant in both models in which they are included. In Model 4, where the immigration variable is the primary explanatory variable, the effect is significant at a level of one percent. Specifically, for each unit increase on the scale towards perceiving immigration as undermining Swedish cultural life, the likelihood of the respondent also being an attribution skeptic rises by ten percent. In the comprehensive model, Model 6, the odds decrease slightly, indicating that when controlling for other attitudes related to the populist radical right, the effect diminishes marginally. Nonetheless, the coefficient remains significant at a level of five percent in this model, and the effect size is 9.5 percent. Since the effect size is almost identical in both models, it strengthens the effect's significance as a critical explanatory factor for climate skepticism. The outcomes of the models support H2, indicating that individuals with stronger nativist attitudes are more prone to climate skepticism.

5.1.3 Authoritarian attitudes

The impact of authoritarian attitudes on attribution skepticism is evident in Model 5, and the comprehensive Model 6, wherein a specific variable captures the odds of authoritarian attitudes in relation to attribution skepticism. This variable aligns with Hypothesis 3, which suggests that individuals with stronger authoritarian tendencies are more inclined toward climate skepticism.

In Model 5, for each unit increase in authoritarian attitudes, the likelihood of the respondent also being a climate skeptic rises by 24.7 percent. The effect increases somewhat in Model 6, with an increase in climate skeptics of 24.8 percent, and remains highly significant in both models, with a significance level of 5 percent in both Model 5 and Model 6. These results support Hypothesis 3, indicating that the association can be generalized to the entire Swedish population.

5.1.4 Control Variables

I include six control variables in each model: gender, age, satisfaction with democracy, feeling about households' income, education, and placement on the political left-right scale. Gender is the only control variable that has a statistically significant effect across all six models. There is evidence of a negative correlation between gender and climate skepticism indicating that women have lower odds of being attribution skeptical compared to men. These findings can be generalized to the broader population with a one percent margin of uncertainty. The strongest effect is observed in Model 6, with an odd at 50 percent. Furthermore, a positive effect between age and climate skepticism is present. This effect remains consistent across all 6 models, indicating a similar relationship. In Model 6, by controlling for the other variables, there is a tendency for older individuals to exhibit a higher level of climate skepticism, although this effect is not significant.

The effect of a person's self-placement on the political left-right scale has a significant result in all models except in model 1. Furthermore, the coefficient indicates that being more to the right on the political scale corresponds with higher odds of being attribution skeptical. The relationship between being dissatisfied with the government and climate skepticism fluctuates in both positive and negative directions across the models. However, the effect is not statistically significant, which suggests that this variable is not the primary explanatory factor in this analysis. The coefficient of measuring an individual's perception of their household income shows a positive correlation, implying that individuals who perceive their current income as highly challenging are more likely to be climate skeptics. However, these results are not statically significant and, therefore, cannot be generalized to the broader population. There is a negative correlation between education and attribution skepticism in all models except Model 1. In Model 6, the odds of being climate skeptics decrease by 0.9 percent for each

increased level of education the respondent possesses. The effect of this variable cannot be generalized to apply to the population, as the coefficient are not sufficiently significant.

5.2 Model Evaluation

There are three main assumptions of logistic regression. These are (1) the logistic curve correctly describes the empirical relationship, (2) the individual observations are independent of one another, and (3) the model is correctly specified without confounding variables, and the relationship is not fully or partially spurious (Skog 2015).

Regarding the first assumption, a Hosmer-Lemeshow test has been performed to assess the goodness of fit for the models. The tests do this by comparing the observed and expected frequencies of the outcome variable across groups based on predicted probabilities. The null model, in context of a Hosmer-Lemeshow test refers to a baseline logistic regression model that assumes no association between the independent variables and the outcome variable. It serves as a reference model against which the fitted model's goodness of fit is compared. The results show a non-significant result from the tests, which suggests that there is no evidence of lack of fit, indicating that the observed frequencies are similar to the evidence frequencies based on the model (Skog 2015, p. 404). Regarding the second assumption, for the European Social Survey, individuals are selected by strict random probability methods at every stage (ESS.no). This helps ensure that the observations are representative of the target population and that they are not influenced by any specific characteristics or features of other observations. Furthermore, respondents answer the questions independently, through individuals' interviews, this further supports the assumption. The analysis has added variables that have empirically been shown to be related to climate skepticism from the populist radical right, this strengthens the third assumption. However, omitted variables bias will always be a threat, therefore, the assumption cannot be said to be fully met (Skog 2015, p. 253-254). It is conceivable that there are more precise measures of populist attitudes that would give a more precise result.

To uncover any multicollinearity or strong mutual correlation between independent variables, a VIF (Variance Inflation Factor) test has been performed on the various models. Variables with a VIF score above ten will be problematic and will be omitted from the analysis. If the degree of covariation is too high then the estimates become unstable and sensitive to small changes (Midtbø 2016, p. 112). All the variables in all models have a lower result than five.

Multicollinearity does not seem to be a problem here (Hermansen 2019, 196). Furthermore, none of the independent variables are highly correlated which is important as multicollinearity reduces the precision of the estimated coefficient. No influential outliers have been identified after running a Bonferroni test.

A ROC curve (Receiver operating characteristic) indicates how well the model distinguishes between false and true predictions. The curve identifies a cut point where the best trade-off between true and false predictions is identified. The area under the ROC curve is also an alternative measure of the model's fit. A ROC curve was run for all models. With regards to their ROCs, the models have an area under the curve (AUC)-scores just below 0.70, apart from Model 6 consisting of all explanatory and control variables (AUC=0.716). An AUC-score of 0.70 is a common cut-off for models with fair prediction (Hermansen 2019, 216-217).

5.3 Results for Models with Climate Concern as the Dependent Variable

In this thesis climate skepticism, in the form of attribution skepticism, is the central focus, and it is the ultimate form the theory seeks to investigate. To complement the analysis, impact skepticism - concerns about climate change - are also considered as a variable. The complementary nature of this variable highlights a more nuanced perspective on the issue. It could be the case that individuals who express lower levels of concern regarding climate change also harbor skepticism about its anthropogenic origins. Given the fact that the populist radical right is known, from the literature, for its opposition to climate change as a real and human-made phenomenon (Lockwood 2018), it is intriguing to examine the impact of these attitudes on levels of climate change concerns. What is worth noticing is that there are overall more people not being worried about climate change, compared to people being skeptical about the anthropogenic dimension of it. This indicates that even if people think climate change is real and happening, they are still not very concerned about its impact.

The comprehensive analysis of the table reveals a reduced number of significant coefficients overall compared to Table 8. Model 1 exclusively includes the Sweden Democrats dummy variable as the independent variable, aiming to reinforce the proposition that the populist radical right exhibits less concern for climate change and possesses a lower inclination to attribute it to anthropogenic causes. Within this model, the coefficient exhibits a positive correlation with the dependent variable, thereby supporting the hypothesis. Identifying with the Sweden Democrats increased the odds of being less worried about climate change by 37 percent. The Odd Ratio backs up the theory that identification with the Sweden Democrats is related to lower levels of concern about climate change. However, the coefficient is not significant, indicating that in this model the results cannot be generalized to the further population.

Table 9: Odds Ratio of not worrying over climate changes' impact.

	Climate change concern					
	(1)	(2)	(3)	(4)	(5)	(6)
Identification with the Sweden Democrats	1.371 (0.273)					
Distrust in politicians		0.999 (0.036)				0.970 (0.039)
Attitudes toward European Union			1.0144 (0.029)			0.997 (0.030)
Attitudes toward immigration				1.089*** (0.028)		1.087*** (0.031)
Important to follow rules and norms					1.0423 (0.043)	1.034 (0.045)
Gender	0.793 (0.149)	0.720*** (0.116)	0.682*** (0.119)	0.742** (0.117)	0.738*** (0.116)	0.708*** (0.122)
Age	1.019*** (0.004)	1.016*** (0.003)	1.015*** (0.003)	1.015*** (0.003)	1.016*** (0.003)	1.015*** (0.003)
Satisfaction with the government	1.045 (0.040)	1.022 (0.037)	1.016 (0.031)	0.992 (0.031)	1.028 (0.030)	1.005 (0.039)
Feeling over households' income	1.009 (0.120)	1.013 (0.089)	1.006 (0.091)	0.974 (0.090)	1.007 (0.089)	0.988 (0.093)
Level of Education	0.849 (0.103)	0.855* (0.082)	0.860* (0.084)	0.894 (0.085)	0.858* (0.082)	0.9144 (0.088)
Self-placement on left-right scale	1.123*** (0.032)	1.119*** (0.027)	1.125*** (0.027)	1.118*** (0.027)	1.115*** (0.027)	1.110*** (0.028)
Constant	-1.964*** (0.467)	-1.460*** (0.367)	-1.452*** (0.379)	-1.570*** (0.367)	-1.622*** (0.378)	-1.541*** (0.407)
Observations	878	1,404	1,351	1,398	1,394	1,315
Log Likelihood	-540.368	-878.364	-839.833	-869.765	-870.511	-811.915

Note: Logistic model with coefficient presented as Odd Ratio * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

5.3.1 Populist Attitudes

One remarkable disparity in examining the variable's effect up to this dependent variable is that none of the results are significant. Interestingly, the coefficient related to trust towards politicians, as evidenced in models 2 and 6, demonstrates a negative effect, with an increase in distrust towards politicians associated with a one percent decrease in the odds of being less concerned about climate change. The effect is negative, but it is not substantial or noteworthy in magnitude. The coefficient associated with European Unification exhibits a positive effect in Model 3, but its direction changes when all variables are controlled for in Model 6. This deviation from the expected direction does not support Hypotheses 1. However, since none of the effects are statistically significant, this analysis does not provide conclusive evidence regarding the relationship between the variables and climate change concerns. We cannot say whether the effect is due to random or “true” effects. This is somewhat contrary to previous research, but it is conceivable that maybe other measures of populism could show a different result.

5.3.2 Nativist attitudes

Hypothesis 2 is linked to the nativist aspect of the populist radical right and climate skepticism. In Model 4, the effect of the variable exhibits statistical significance at a one percent level, indicating that an increase of one scale unit on the immigration variable corresponds to an 8.9 percent increase in the odds of being less concerned over climate change impact. Specifically, the belief that immigrants undermine Sweden's cultural life is associated with higher odds of having less climate change concern. Although the effect size is not large, it remains consistent and significant at a one percent level in both Models 4 and 6. Given that the results are significant in both models Hypothesis 2 is supported, as the effect remains consistent and significant at a one percent level. This provides evidence for the relationship between the variables, and these findings, suggest that nativism plays a role in shaping climate change attitudes.

5.3.3 Authoritarian attitudes

Hypothesis 3 examines the association between authoritarian attitudes and climate change skepticism. The coefficients of the variable measuring this, display positive odds of being less concerned over climate change. Though, the effect size is relatively small. In Model 5, the odds increase by 4.2 percent, while in Model 6, when controlling for all other variables, the odds decrease to 3.4 percent. However, these relationships are not statistically significant and can therefore not be generalized to the broader population. Consequently, H3 does not lend support, and its applicability to the population is not supported. It is possible that alternative measures of authoritarianism could yield different effects and results, or that future research is needed to explore the relationship between authoritarianism and climate change concerns.

5.3.4 Control variables

In Model 6, several control variables demonstrate a statistical significance effect at a 1 percent level. Notably, the gender variable coefficient reveals that being a woman decreases the odds of being less worried about climate change by 29 percent. This suggests that men are less concerned with climate change compared to women. The effects regarding the age variable suggest that older individuals have slightly higher odds of being less concerned about climate change. Furthermore, the variable measuring placement on the left-right scale consistently demonstrates statistically significant coefficients at a one percent level across all 6 models, indicating its importance in explaining climate change concerns. Specifically, the results reveal that individuals positioned further to the right on the political scale have higher odds of exhibiting lower levels of worry about climate change. The effect of education is statistically significant at a 10 percent level in models 2, 3, and 5, suggesting that individuals with higher education exhibit lower odds of being less concerned over climate change. However, the coefficient of the remaining control variables does not display statistical significance, indicating that in this analysis they do not provide evidence of their effects on the dependent variable.

5.4 Model Evaluation

The first assumption for logistic regression models, was assessed using a Hosmer-Lemeshow test. The results of the test yielded a non-significant result, indicating that there is no evidence of lack of fit in the models. The second and third assumption, were evaluated using the same conditions as the models in the first table. To examine for any multicollinearity, Variance Inflation Factor (VIF) tests were conducted for all models. The VIF values for all variables in each model were below five, indicating that multicollinearity is not a concern in these models. Additionally, influential outliers were examined using a Bonferroni test, and no influential outliers were identified. Furthermore, ROC curves were constructed for all models, and the area under the curve (AUC) were analyzed. The area under the curve is nearly the same for all models. All models have an area under the curve between 0.629 and 0.650.

6. Concluding Remarks

To tackle the pressing issue of climate change, greenhouse gas emissions must be reduced, and adaptation strategies must be implemented. Political action is imperative for achieving these goals. However, as the global climate crisis intensifies, there has been a concurrent rise in the popularity of populist radical right parties in democracies around the world. These parties and their supporters have been found to be more dismissive of climate change compared to other political parties (Lockwood 2018). While studies have shown a link between the populist radical right and climate change skepticism, further research is needed to identify the specific attitudes that are most conflictive with climate change. Rather than analyzing the populist radical right as a whole, it is important to consider the distinct ideological components that make up this concept. The thesis aims to examine the specific attitudes associated with the populist radical right that is particularly conflicting in their relationship to climate change. Given that the populist radical right is comprised of various elements, it is crucial to identify which attitudes within this framework exhibit a notable conflict with climate change. Therefore, this research endeavors to uncover the specific types of attitudes linked to the populist radical right that are particularly conflictive when it comes to addressing climate change.

To do so, I check the connection between climate change skepticism and attitudes linked to populist radical right parties, such as authoritarianism, populism, and nativism. Deeper knowledge about public attitudes helps to anticipate public responses in the process of implementing different climate measures, which can contribute to effective policies (Stefan Drews and Jeroen C.J.M van der Berg 2016). The thesis relies on individual-level explanations for explaining variation in attitudes toward climate change, in Sweden. The literature emphasizes three elements, that make up the core ideology of the populist radical right, populism, nativism, and authoritarianism (Mudde 2016). The existing literature on the field and its relationship to climate change provide a starting point, from which I make predictions based on existing explanations related to the populist radical right and skepticism toward climate change. To analyze I draw on one of the most extensive versions of data that is currently available on attitudes toward these issues from the European Social Survey (ESS) Round 8. This especially version of the survey includes a module on Climate and Energy, which especially asks questions about people's views and opinions toward different climate and energy issues (European Social Survey 2016).

The focus on Europe is due to its wide variety of far-right actors, which at the same time are said to form a relatively coherent whole. The more specific focus on Sweden is due to the country's longstanding and intricate history of populist radical right parties, with the Sweden Democrats that have increased in scope and political power the recent years. Furthermore, the country is at the forefront of tackling climate change and with a population where the majority believe in climate change and are concerned over its implications. This positions Sweden as a case where the applicability of the theory and assumptions can be examined in a context that offers valuable insights for broader generalizations. I take the arguments surrounding the populist radical right and climate attitudes and perform empirical tests on the individual level. The design of the thesis allows for differentiation of the role of populism from other key components of the populist radical right, such as nativism, and authoritarianism, as well as left-right placement and party identification.

Previous research identified political orientation as a key determinant of public support, and studies show that left-leaning people are more pro-environmental compared to others (Jager, Harring, and Matti 2017). These were some of the theoretical starting points for this thesis. Literature and studies demonstrate that nationalist leanings are associated with attitudes toward climate policies and that climate change policies can be seen as a cosmopolitan threat to national sovereignty (Kulin, Johansson, and Dunlap, 2021). Moreover, anti-egalitarian preferences have been shown to be a strong predictor for climate change denial in Sweden. With this in mind, I wanted to test all the components related to the populist radical right, toward climate change skepticism. The focus of the thesis centers around climate change skepticism, encompassing public beliefs about the causes and existence of climate change, as well as climate change concerns. Climate change skepticism is defined as cognitive propositions regarding the nature of climate change (Poortinga et al. 2011). Additionally, the concept of climate concern is included to provide a comprehensive perspective, capturing affective evaluations of the severity of climate change impacts, as indicated by personal feelings of worry about the issue. These variables are examined as distinct dependent variables in separate analyses. The thesis also aims to fill a gap in the existing literature by delving more into the authoritarian aspect of the populist radical right and its relationship with climate change, which is a crucial component of the populist radical right. By contributing to new theoretical and empirical insight, this research enhances our understating of the drivers behind climate change skepticism, thereby shedding light on the ideological factors that contribute to such skepticism. This knowledge is valuable for informing climate policy implementation and developing effective strategies to address and

mitigate climate skepticism. Methodological considerations are carefully addressed through appropriate operationalizations of variables and modeling decisions. Considering these considerations, the following findings are presented in response to the research question.

6.1 Summary of Findings

The first section of the analysis focused on examining the individual-level components associated with the populist radical right and their association with attribution skepticism. More precisely, populist, nativist, and authoritarian attitudes. First, I find that identifying with the Sweden Democrats is an important aspect when it comes to being a climate skeptic. Identifying with the party is positively associated with being attribution skeptical towards climate change. This aligns with previous literature that finds that identification with the populist radical right relates to climate skepticism. Secondly, the analysis reveals that there is no significant relationship between distrust towards politicians and climate skepticism. The effect is negative and insignificant, thus failing to support H1. However, when exploring another aspect of populism, specifically the cosmopolitan value related to attitudes toward European Unification, the findings align with Hypothesis 1 and provide support for it.

Furthermore, the analysis section delves into the examination of nativist attitudes contributing to climate skepticism. Firstly, the finding reveals that individuals with stronger nativist attitudes exhibit higher odds of being attribution skeptical. These results align with previous studies stating that immigration, established elites, and climate change can be perceived as proxies of the political majority, potentially threatening the existing political and social order (Krange, Kaltenborn, and Hultman 2021). This underscores the persistent role of nativism as an explanatory variable in the context of climate change and supports H2. Additionally, I show that authoritarianism, operationalized as the importance of following rules and doing what is told, matters for whether an individual is attribution skeptical or not. The odds in the full model are also the highest of all the main explanatory variables. The result supports H3, which anticipates that people with more authoritarian attitudes are more likely to be a climate skeptic.

Moreover, I conducted an analysis to examine the impact of attitudes associated with the populist radical right on concerns regarding climate change. This contributes to a deeper understanding and broader grasp of the phenomenon. The findings from the initial model indicate that identification with the Sweden Democrats does not significantly influence an

individual's level of climate change concern. Instead, a stronger predictor is one's self-placement on the political left-right scale.

In relation to populism, the analysis reveals that lower levels of trust in politicians are not associated with increased odds of being unconcerned about climate change in this model. The effect of the variable measuring attitudes toward European Unification demonstrates a similar pattern in relation to concern over climate change, as it does not exhibit any significant effect. Furthermore, the effect of the variable related to immigration holds substantial explanatory power. Interestingly, it exhibits higher level of significance and higher odds of being less concerned over climate change, as opposed to climate skepticism. This entails that the results are in line and supports H2, in both models, which expects people who are more nativist to be more likely to be skeptical toward human-induced climate change.

The third variable, which pertains to authoritarianism, demonstrates no significant effect on climate change concerns. This finding is intriguing considering that the variable exhibits the highest odds of being associated with attribution skepticism, consistently showing a significant value in both models presented in Table 9. In turn, immigration is the only variable with a significant coefficient in both tables, implying that these attitudes are consistent with attribution skepticism and being less concerned over climate change. However, when examining authoritarian attitudes, it exhibits the highest odds of being associated with attribution skepticism of all the main explanatory variables. In contrast, no effect is evident regarding being less concerned over climate change. In contrast, the control variables that are statistically significant for attribution skepticism and climate change concern are largely the same, with a few exceptions. Notably, the effect of gender appears as a significant factor in explaining attribution skepticism. The effect of completed education only displays an effect on concern over climate change.

6.2 Implications of Findings

In the literature, the populist radical right and its associated attitudes are recognized as crucial factors in explaining the predisposition toward climate change skepticism, and its implications. Nonetheless, the way these explanatory variables interact and their effect on the likelihood of one being a climate skeptic, particularly in a country where the degree of climate skepticism is low but with an ascendant populist radical right party, requires further exploration. I have argued, that while the literature on the field provides a pertinent starting point for outlining empirical expectations about attitudes consistent with climate change skepticism, and provided scientific evidence that the right-wing specter of the political scale is overall more skeptical toward climate change, its causes and impact needs more investigation. However, it is not given how these attitudes consistent with the populist radical right affect one another, especially their effect in a country like Sweden. There are still a limited number of studies done in Scandinavian countries on the issue. My study contributes to the literature on the influence of political ideologies on public opinion about climate change, as I identify nationalism, authoritarian and populist attitudes as predictors of climate change skepticism. The most coinciding finding, in all models, is that individuals in Sweden holding attitudes consistent with nativism - a trait of populist radical right parties - are more likely to be skeptical about the human influence on climate change, and less worried over its impact.

First and foremost an interesting factor to line out before the implications of the results are discussed is that Sweden is a country where the overall skepticism over the causes of climate change is low, whereas most people believe that climate change is real (Special Eurobarometer 513). However, the number of people worried and concerned about climate change is much lower. In the ESS survey, when asked if people are worried about climate change, 32 percent are not at all worried, or not very worried. This could have implications for the implementation of climate policies in Sweden, and it could have broad implications for the prioritization of climate action in the Swedish society. When moving to the effect of the populist radical right party in Sweden - the Sweden Democrats- my results highlight the effect of feeling closer to a populist radical right party as a significant factor in climate change attribution skepticism. It is important to note that the effect is greater than just belonging to the right on the political scale, indicating a unique impact of the populist radical right on climate change attitudes. Additionally, it is interesting to observe that identifying with the Sweden Democrats does not influence less concern over climate change. However, being more right-leaning politically is a stronger predictor of being less concerned. These findings suggest that identification with

specific parties, such as the Sweden Democrats, plays a crucial role in shaping climate change attitudes and skepticism in Sweden.

The populist element of the populist radical right consists of several elements. Where one emphasizes the negative effect of globalization (Lockwood 2018), and another where information about the sender will be used to infer information, which emphasizes the elitist and elite-driven aspect of populism. Since the nature of climate change is abstract and technical, it can be portrayed as detached from citizens' everyday needs (Huber 2020). In my results, I find that believing that European Unification has gone too far is associated with being attribution skeptical, however, there is no significant association between trust in politicians and attribution skepticism. Attitudes towards globalization and European unification may play a role in shaping climate skepticism, but trust in politicians may not have such an impact. Regarding being less concerned over climate change none of these attitudes display an effect. It is, however, important to keep in mind that even though trust in politicians illustrates no effect regarding either attribution or impact skepticism, it is conceivable that the result could be different with even more direct measurements of populism. The same applies to attitudes toward European Unification and impact skepticism.

Turning to the nativist element of the populist radical right, interesting effects appear. Immigration issues are one of the core policy goals of the Sweden Democrats and the populist radical right. In my results, I find that those who believe that immigration undermines Sweden's cultural life have higher odds of being attribution skeptical over climate change, as well as less concerned over its impacts. This could indicate that the nativist element of the right-wing is more important than the populist component, regarding climate change attitudes. The observed effects align with prior research highlighting the transnational nature of the climate crisis, which consequently shifts agency from nation-states to international entities. This transformation poses challenges to fundamental tenets of nationalism (Fortcher and Kølvråa 2015), while also presenting potential threats to established political and social structures. Moreover, as this specific version of the European Social Survey is conducted in 2016, it is plausible that the refugee crisis of 2015 sparked support for the populist radical right party, to the extent that immigration issues gained more attention in the media and society as a whole. The significant results of this attitude in all models reflect some of the core aspects of the Sweden Democrats and the populist radical right. Therefore, the findings are relevant to the growing literature on the links between the populist radical right and climate change positions among voters. These

results suggest that nativist attitudes, particularly regarding immigration, are some stable explanatory variables for climate skepticism and climate change impacts.

The last dimension of the populist radical right analyzed in this thesis is the authoritarian aspect. As there is less literature on the relationship between the authoritarian component of the populist radical right, compared to the other key components, it is considered even more important to test. This is to get a deeper and even more complex understanding of the phenomenon. What is interesting is that of all the measurements consistent with the populist radical right, this measurement has the strongest predictor of being attribution skeptical and displays higher odds than both European unification and immigration. Interestingly when it comes to impact skepticism, being concerned over climate change, the coefficient for the variable displays no effect. These findings suggest that the association between authoritarian attitudes and impact skepticism may not be as strong as it is with attribution skepticism.

Overall, identifying with a populist radical right party in Sweden is connected to being attribution skeptical toward climate change. But this is not the case for impact skepticism, being less concern over climate change's implications, where identifying with the populist radical right display no effect, while on the other hand being more to the right on the political scale is. Furthermore, my findings, that nativism, attitudes toward European unification, and attitudes associated with authoritarianism are all associated with higher odds of being climate skeptical, should be kept in mind by policymakers, and considered when discussing climate change. If those who are skeptical about the human impact on climate change, in turn, are also less concerned over the consequences it causes, feel "left behind" by globalization and feel that climate change and the policies following may threaten the national sovereignty (Lockwood 2018) it will be an advantage for politicians to have this in mind when speaking about climate change and its implications. My results are in line with the assumptions stating that since climate change and the policies associated with it often are negotiated in international bodies, the public might feel largely excluded, which in turn may lead to anti-elitism and affect attitudes toward climate change (Norris and Inglehart 2016). Thus, when having more information about attitudes and political views associated with climate change skepticism, governments, scientists, and politicians may assess different ways of making and communicating information and political decisions.

Meanwhile, the traditional left-right placement is influential regarding both climate change skepticism (attribution) and climate change concern (impact), indicating that public skepticism is also linked to more mainstream political cleavages. Additionally, my thesis uncovers that when it comes to factors associated with impact skepticism, they are not necessarily the same as attribution skepticism. Placement further to the right on the political scale is a much stronger predictor compared to identifying with the Sweden Democrats, implying that identifying with a populist radical right party is a stronger predictor for attribution skepticism, than being less concerned over climate change. Also, authoritarian attitudes display no effect on concern over climate change. Regarding attribution skepticism, authoritarian attitudes are highlighted as an important factor. Lastly, distrust toward politicians does not appear as an influential factor in explaining the variation in either of the dependent variables. This emphasized the importance of the other variables that were examined in the study, indicating that they play a more prominent role in shaping attitudes toward climate change. Particularly, other components of populism, as it suggests that there may be specific elements of populism that are associated with climate change skepticism, rather than populism as a whole.

6.3 Future Research

In this section, I briefly outline some avenues for future research. Populist radical right parties and the fundamental driver for populist radical right support are deep-rooted and are likely to remain in place for years to come. At the same time, the climate crisis is getting more severe. In my study, I employ data from the European Social Survey Round 8, where this specific round has a module dedicated to climate change perceptions. This allows me to explore associations with different aspects of climate change perceptions and to use good measurements of attitudes toward climate change. My first thought for this study was to examine the evolution of attitudes toward climate change and the populist radical right over time. However, due to limited access to data, the study is confined to an in-depth analysis of one year in Sweden. Given the increasing severity of the climate crisis and the growing prominence of populist radical right parties, it is imperative to explore how these two phenomena interact with each other over time. Conducting a longitudinal study spanning several years could yield significant insights into the changing attitudes toward climate change and the populist radical right, thereby enhancing our understanding of the potential relationship between the two. It could also help identify the direction of causality between these two factors, which is more difficult by using cross-sectional data. Avenues for future research could further explore how discrete events or policy changes, such as large-scale climate-related disasters or shifts in immigration policies, impact attitudes toward climate change and the populist radical right. This would enable the identification of specific factors driving these attitudes and provide a more nuanced understanding of how they may evolve.

Additionally, as stated earlier in this thesis, the measurements utilized to capture elitism and populism may not be optimal. They do capture the notion of distrust toward politicians, which can be portrayed as elites in the society, as well as the more cosmopolitan dimension of populism, and the feeling of a lack of general will of the people. However, The ESS Round 8 does not provide questions that tap as much into the core aspects of populism as other studies have done. Future research could therefore include questionnaires designed in a more targeted way toward the core feature of populism. In Akkerman, Mudde, and Zasloves' study from 2013, they include questions directed more to the division between "good" and "evil", where they use a full survey just designed to capture the full ideology of populism, in particular the will of the people. Further research could, therefore, include more measures of the core elements of populism to get an even more nuanced and better understanding of how the concepts are related

to climate change. Given the observed variations between the two dependent variables, with a comparatively weaker influence on climate change concern than on climate change skepticism, exploring a wider range of attitudes could be crucial for comprehensively grasping the impact of these attitudes on various aspects related to climate change attitudes.

The positive association of the nativist aspect with both dependent variables underscores its relevance in this context. Nativism is one of the populist radical rights core elements, and many populists' radical right parties have stronger immigration policies as one of their most important issues. Future studies could therefore explore the role of nativism and national ideology further and its consequences for attitudes directed toward climate change. There is less research available that examines the authoritarian aspect of the populist radical right and how it relates to climate skepticism. My results show a strong and significant correlation between attitudes related to authoritarianism and attribution skepticism. Considering these findings, future research should consider conducting more in-depth investigations into various dimensions of the authoritarian aspect of populism and its relationship to attitudes toward climate change. This would contribute to a more comprehensive understanding of the complex dynamics between authoritarianism and climate change attitudes.

Considering that this analysis focuses exclusively on Sweden, which presents a more challenging case due to its relatively low prevalence of climate skepticism and the emergence of a populist radical right party, it provides a unique context for examining the relationship between these factors. Its unique combination of factors makes it interesting and relevant to study in relation to populist radical right parties and attitudes toward climate change. Given the several significant results that have been revealed in this study, further research can be conducted to investigate how the particular cultural, social, and political contexts of various nations can influence attitudes towards both climate change and the populist radical right. This is particularly relevant considering that the underlying drivers of support for the populist radical right are deeply ingrained and likely to persist over an extended period. It is interesting to see if the same results remain stable and the same in other countries with similar features like Sweden. This could further help to identify whether the findings of my study are unique to Sweden or whether they can be generalized to other contexts.

While my study provides some insight into the relationship between populist radical right and climate change positions, the exact mechanisms and underlying factors that drive this relationship are still not fully understood. Therefore, future research could delve deeper into the

reasons behind the connections between these two attitudes. This could involve investigating the role of political discourse and individual values as well as the media's role in shaping these attitudes, as well as exploring the potential moderating effects of demographic factors. A more comprehensive understanding of this relationship could help inform the development of effective communication and policy strategies to address climate change skepticism among populist radical right supporters.

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Appendix

A. Descriptive Statistics

N: 1551

Table 10: Descriptive statistics for variables used in the analyzes.

Variables	Central tendency (Mean)	Standard deviation	Missing (NA's)	Min	Max
Dependent variables					
Climate skepticism	0.0677	0.251	18	0	1
Climate concern/worried	0.352	0.867	12	0	1
Independent variables					
Party feeling closer to	0.086	0.280	623	0	1
Trust towards politicians	5.274	2.077	20	0	10
EU unification gone too far/go further.	5.201	2.152	101	0	10
Country cultural life enriched/undermined immigrants	3.07	2.284	27	0	10
Important to do what is told and follow the rules.	2.7	1.369	31	1	6
Control variables					
Gender	1.501	0.500	1	1	2
Satisfaction with national government	5.182	2.039	36	0	10
Feeling about households' income	1.405	0.657	12	1	4
Placement on left right scale.	5.222	2.274	69	0	10
Education	1.56	0.722	39	1	4
Age	51.56	19.06	4	15	90

Figure 1: Distribution of people being attribution skeptical and not.

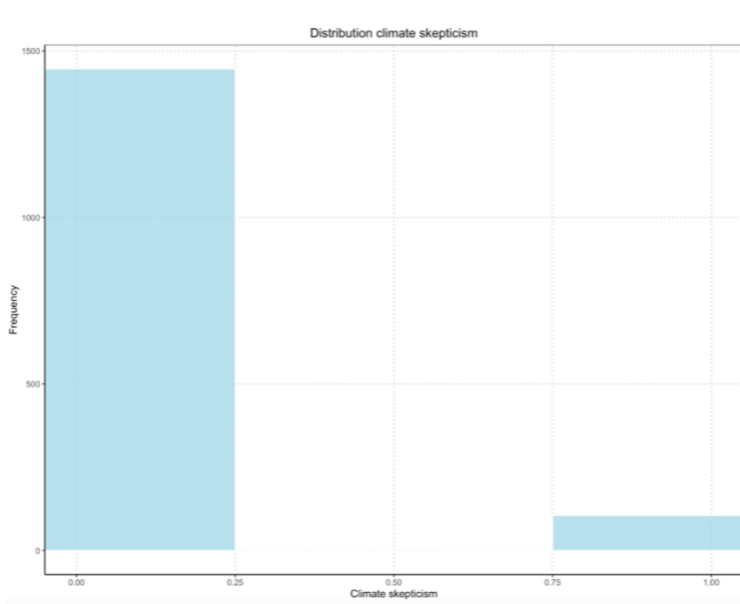


Figure 2: Distribution of people being attribution skeptical where the variable include three values.

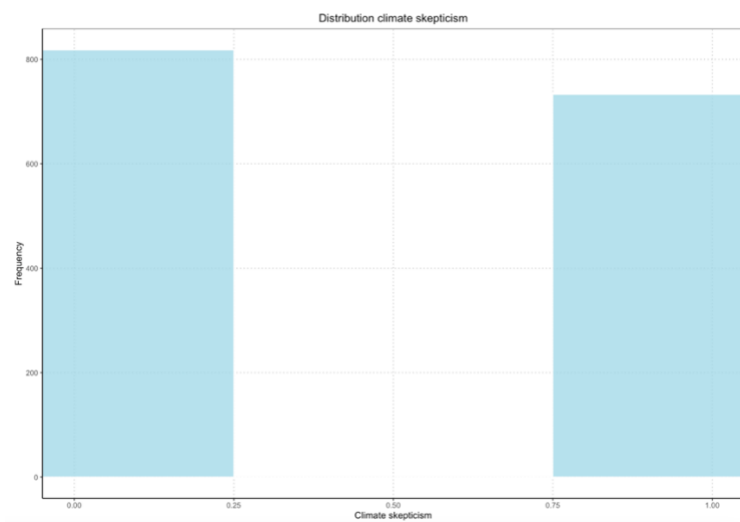


Figure 3: Distribution of people not being concern over climate change and everyone else.

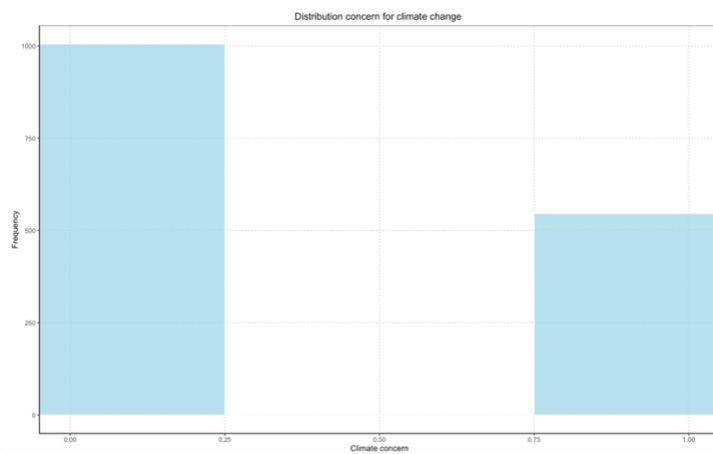


Figure 4: Distribution of level of trust in Politicians

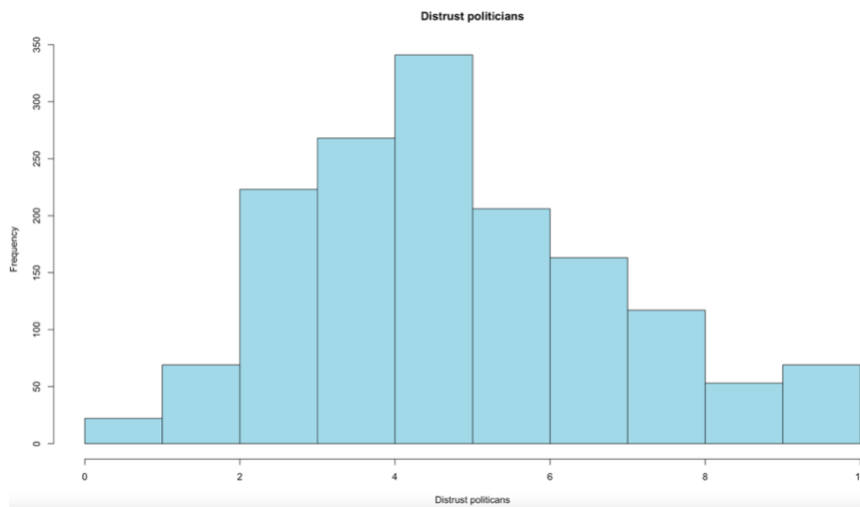


Figure 5: Distribution of attitudes toward further European Unification.

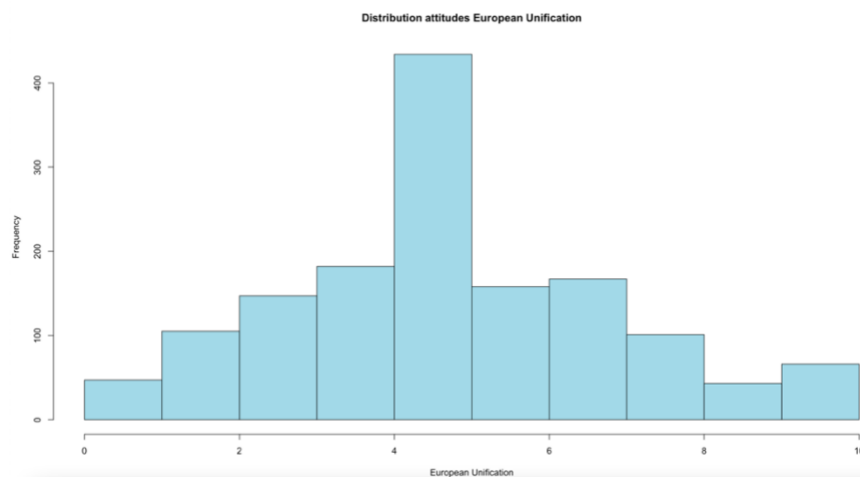


Figure 6: Distribution of attitudes toward immigration as enriching or undermining Sweden's cultural life.

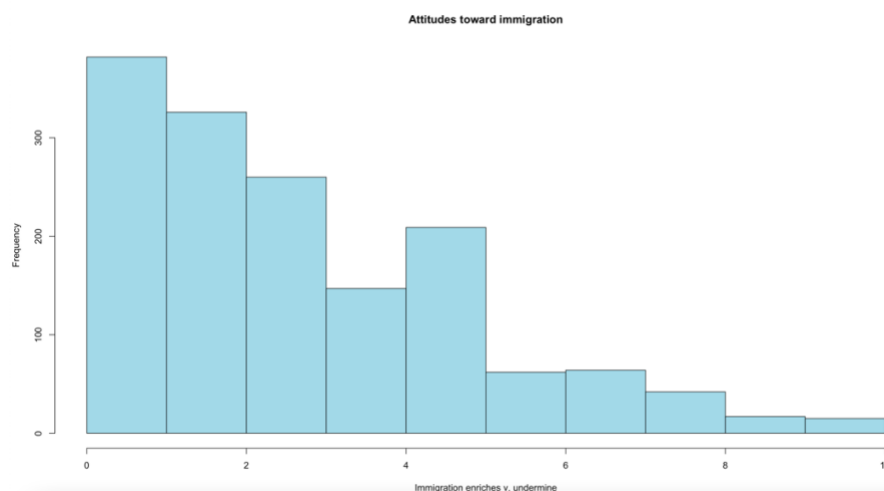


Figure 7: Distribution of attitudes toward importance to follow rules and to do what is told.

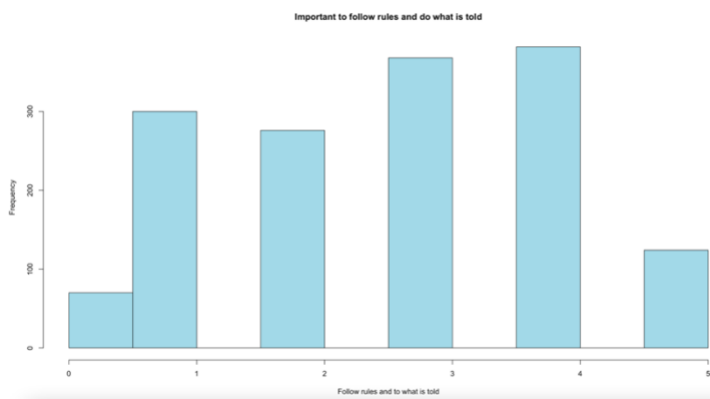


Figure 8: Gender

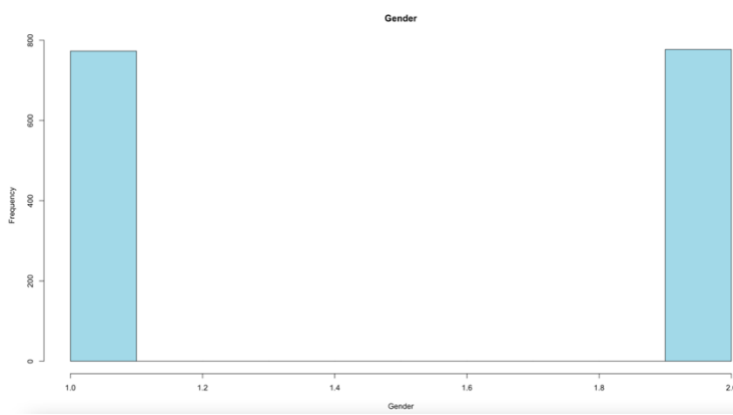


Figure 9: Distribution over satisfaction with the national government in Sweden.

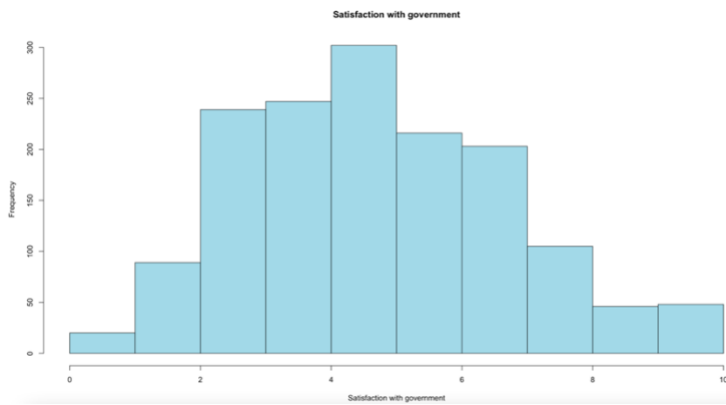


Figure 10: Distribution over feeling of Feeling over Households' income.

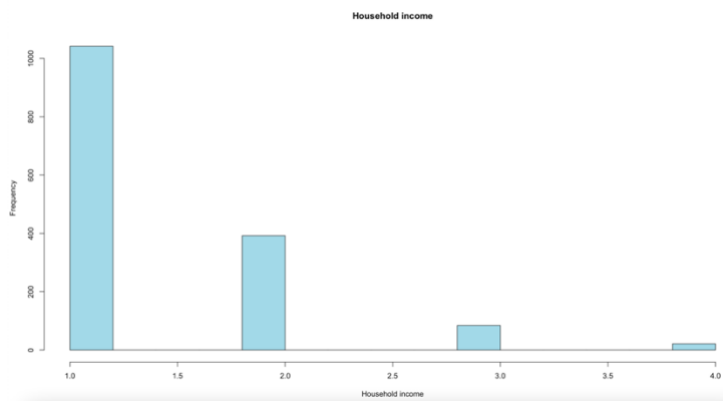


Figure 11: Distribution of peoples placement on political left-right scale

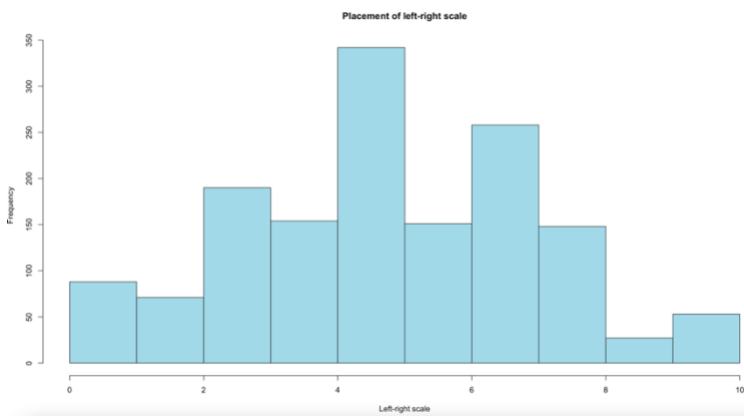


Figure 12: Distribution over Education Level

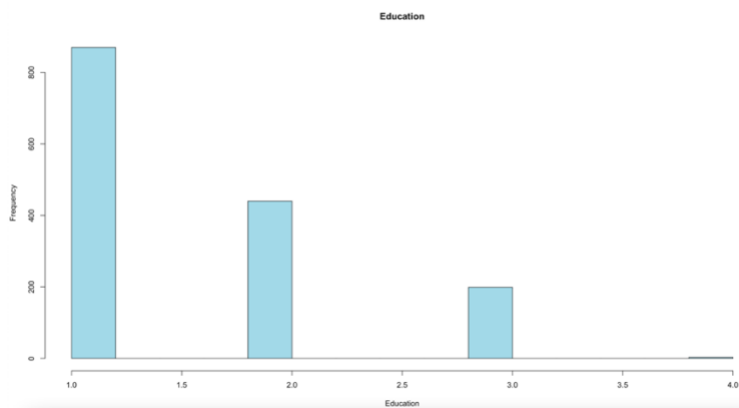


Figure 13: Distribution over the Age of Respondents

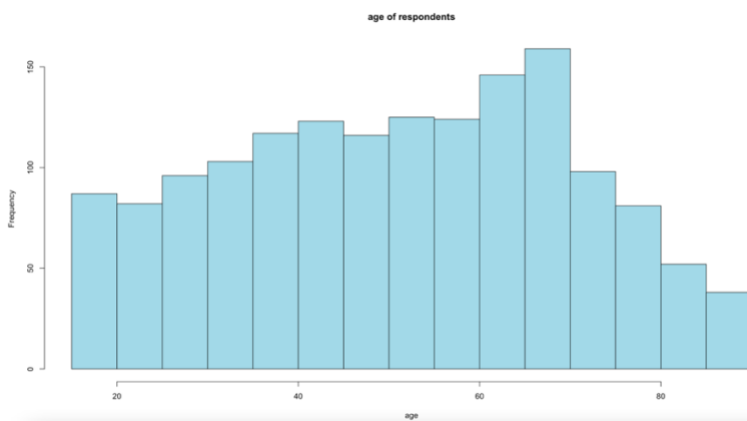


Figure 14: Distribution of identification with the Sweden Democrats

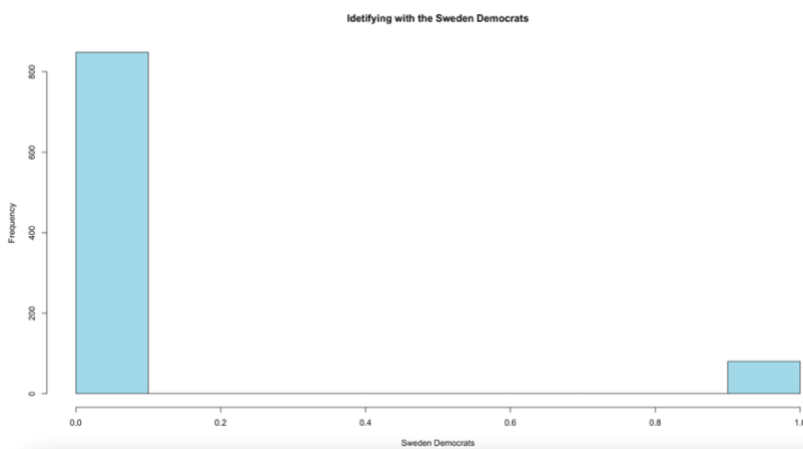
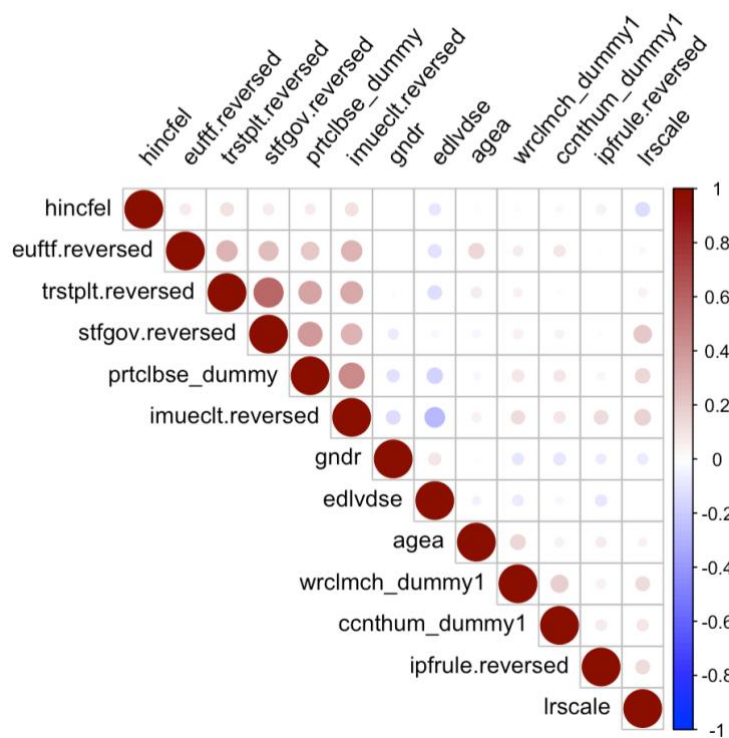


Figure 15: Correlation Matrise of Variables



B. Coding of Variables

Table 11: Coding of variables as they appear in the European Social Survey

Variable	Survey question	Coding
Dependent variables		
Climate skepticism (Climatechange_natural_human)	<i>Do you think that climate change is caused by natural processes, human activity, or both?</i>	1 = entirely by natural processes [...] 5= entirely by human activity
Climate concern/worried (Worried_climate_change)	<i>How worried are you about climate change?</i>	1= Not at all worried [...] 5= extremely worried
Independent variables		
Party feeling closer to (Party_closeto)	<i>Which party do you feel closer to, Sweden</i>	1= Sweden Democrats 0= All other valid answers
Trust towards politicians (Trust_politician)	<i>Please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly... ...politicians?</i>	0= No trust at all [...] 10= complete trust
European Unification go further or gone too far. (Eu_gonetofar)	<i>Now thinking about the European Union, some say European unification should go further. Others say it has already gone too far. Using this card, what number on the scale best describes your position?</i>	0= Unification already gone too far [...] 10= Unification go further
Countries cultural life undermined or enriched by immigrants. (imgr_unriched_enriched_cultural)	<i>Using this card, would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries?</i>	0= Cultural life undermined [...]

		10= Cultural life enriched
Important to do what is told and follow rules. (imp_follow_rules)	<i>She/he believes that people should do what they're told. She/he thinks people should follow rules at all times, even when no-one is watching.</i>	1= Very much like me [...] 6= Not like me at all
Control variables		
Gender	<i>Gender</i>	1= Male 2= Female
Satisfaction with national government (Satisfaction_gov)	<i>Now thinking about the [country] government, how satisfied are you with the way it is doing its job?</i>	0= Extremely dissatisfied [...]
Feeling about households' income (Feeling_house_income)	<i>Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?</i>	10= Extremely satisfied 1= Living comfortably on present income [...] 4= Very difficult on present income
Placement on left right scale. (Left_right_scale)	<i>In politics people sometimes talk of 'left' and 'right'. Using this card, where would you place yourself on this scale?</i>	0= Left [...] 10= Right
Age	<i>Age of respondent</i>	15- 90
Education	<i>What is the highest level of education you have successfully completed?</i>	1= Finished Elementary school [...] 20 = Postgradual education, Doctoral Degree

Source: European social survey round 8

Note: Missing values and invalid answers are removed.

Table 12: Dependent variable: Climate skepticism Recoded.

Variable	Coding Description	Min.*	Max**
<i>Untransformed</i>	Scale of 1: entirely by human processes to 5: entirely by human activity	1	5
<i>Binary</i>	Scale of 1: climate skeptic 0: not climate skeptic	0	1

Table 13: Dependent variable: Climate change concern Recoded.

Variable	Coding Description	Min.*	Max**
<i>Untransformed</i>	Scale of 1: Not at all worried to 5: extremely worried	1	5
<i>Binary</i>	Scale of 1: Not worried 0: worried	0	1

C. Evaluating Models

Table 14: Hosmer-Lemeshow test for model with attribution skepticism as the dependent variable

Model:	P-value
Model 1	0.1082
Model 2	0.3585
Model 3	0.7131
Model 4	0.74
Model 5	0.1786
Model 6	0.6912

Table 15: Hosmer-Lemeshow test for models with impact skepticism as the dependent variable:

Model:	P-value
Model 1	0.9347
Model 2	0.4465
Model 3	0.7077
Model 4	0.734
Model 5	0.8792
Model 6	0.964

Table 16: P-values Bonferroni Outlier test for models with attribution skepticism as the dependent variable

Model:	P-value
Model 1	0.0054
Model 2	0.0043
Model 3	0.0025
Model 4	0.0046
Model 5	0.0051
Model 6	0.0026

Table 17: P-values Bonferroni Outlier test for models with impact skepticism as the dependent variable

Model:	P-value
Model 1	0.047
Model 2	0.049
Model 3	0.040
Model 4	0.033
Model 5	0.046
Model 6	0.027

Table 18: Nagelkerke's pseudo-R-squared for models with attribution skepticism as the dependent variable

Model:	Value
Model 1	0.499
Model 2	0.168
Model 3	0.185
Model 4	0.184
Model 5	0.181
Model 6	0.220

Table 19: Nagelkerke's pseudo-R-squared for models for impact skepticism as the dependent variable

Model:	Value
Model 1	0.621
Model 2	0.209
Model 3	0.265
Model 4	0.221
Model 5	0.220
Model 6	0.304

Table 20: Akaike Inf. Crit. Values Attribution skepticism models

Model:	AIC
Model 1	447.633
Model 2	678.663
Model 3	667.681
Model 4	668.380
Model 5	670.413
Model 6	650.257

Table 21: Akaike Inf. Crit. Values Impact skepticism models

Model:	AIC
Model 1	1,096.736
Model 2	1,772.727
Model 3	1,695.666
Model 4	1,755.531
Model 5	1,757.022
Model 6	1,645.829

Table 22: VIF value range for attribution skepticism models

Model:	VIF value range
Model 1	1.019-1.417
Model 2	1.028-1.630
Model 3	1.015-1.183
Model 4	1.017-1.248
Model 5	1.025-1.104
Model 6	1.0264-1.762

Table 23: VIF value range for impact skepticism models

Model:	VIF value range
Model 1	1.022-1.299
Model 2	1.021-1.643
Model 3	1.017-1.160
Model 4	1.013-1.221
Model 5	1.015-1.095
Model 6	1.034-1.731

ROC-curves for Attribution skepticism: Figure 16: Model 1

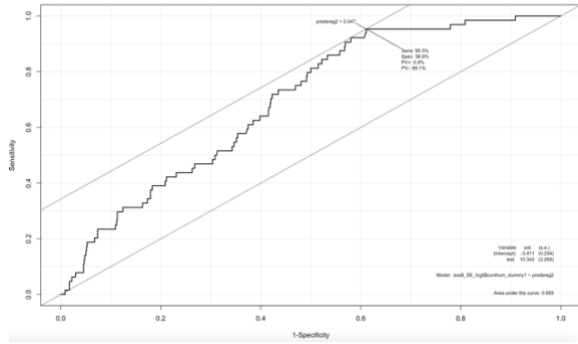


Figure 17: Model 2

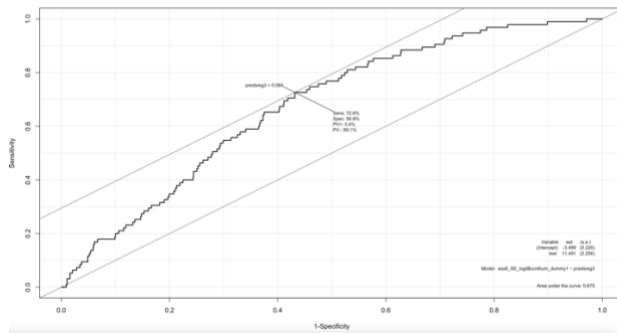


Figure 18: Model 3

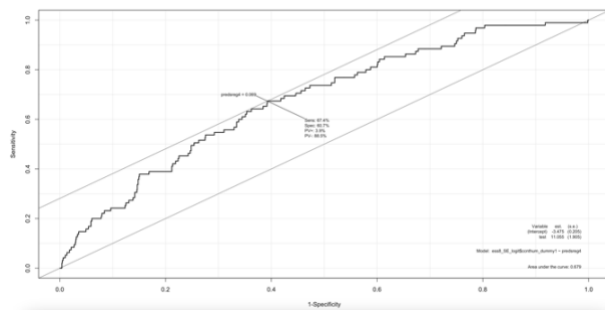


Figure 19: Model 4

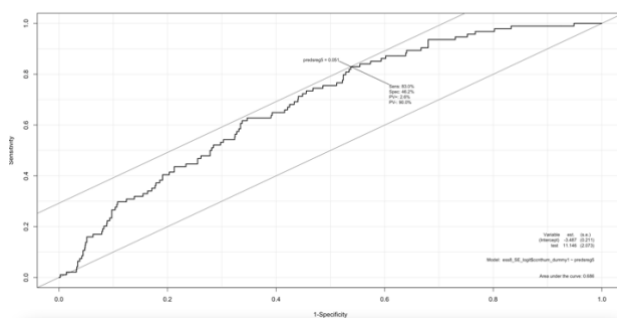


Figure 20: Model 5

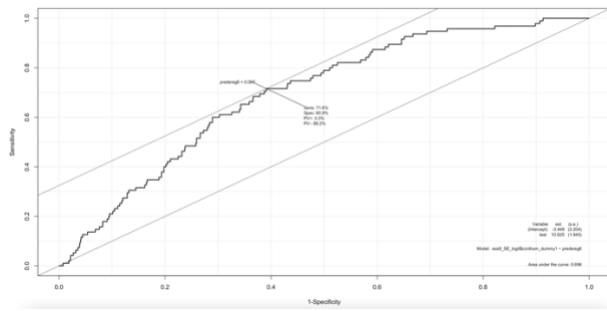
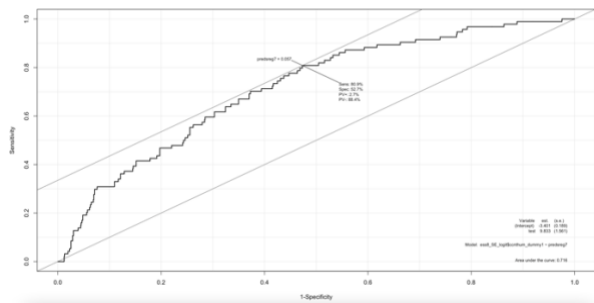


Figure 21: Model 6



ROC- curves impact skepticism:

Figure 22: Model 1

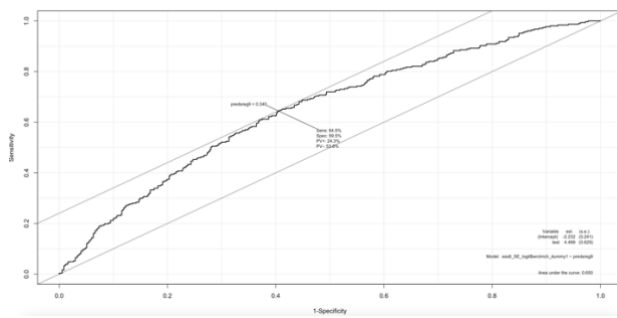


Figure 23: Model 2

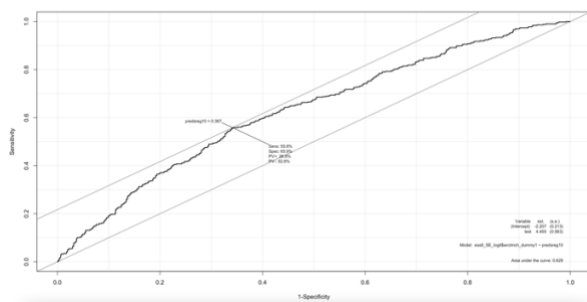


Figure 24: Model 3

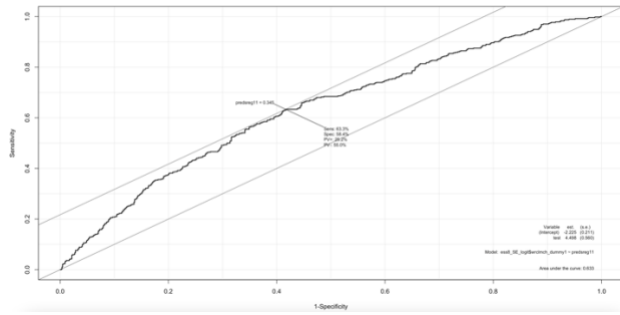


Figure 25: Model 4

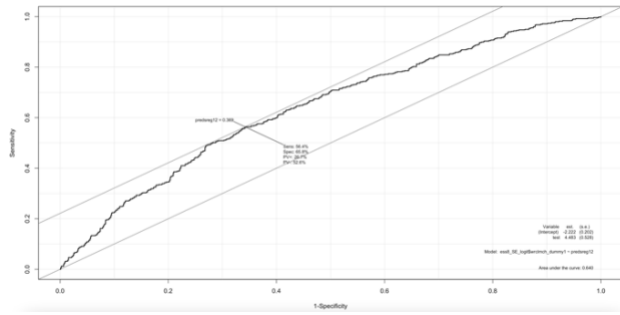


Figure 26: Model 5

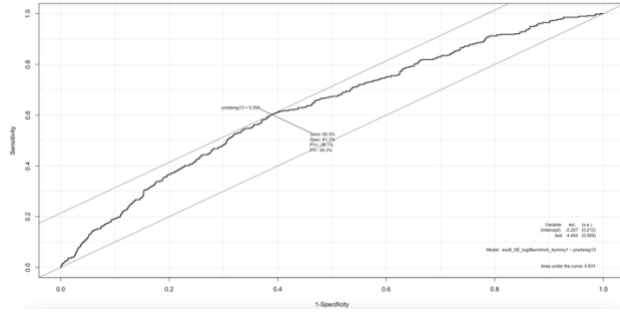
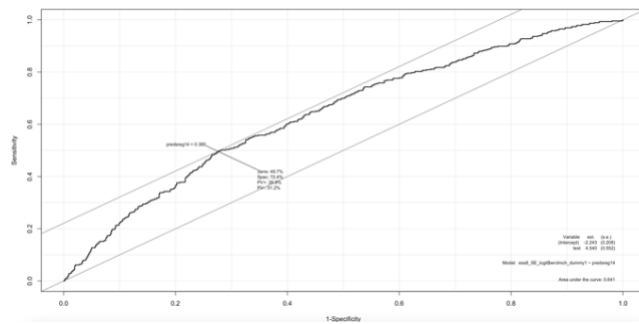


Figure 27: Model 6



Alternative logistic model for attribution skepticism

Table 24: Alternative model with logistic model for attribution skepticism

	Attribution Skepticism					
	(1)	(2)	(3)	(4)	(5)	(6)
Sweden Democrats	0.164 (0.273)					
Trust Politician		0.041 (0.035)				0.032 (0.038)
European Unification			0.076*** (0.028)			0.060** (0.030)
Immigration				0.121*** (0.027)		0.103*** (0.030)
Follow rules and norms					0.116*** (0.042)	0.101** (0.044)
Gender	-0.140 (0.143)	-0.060 (0.112)	-0.039 (0.115)	-0.022 (0.114)	-0.045 (0.113)	0.003 (0.119)
Age	0.023*** (0.004)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)	0.021*** (0.003)
Satisfaction government	-0.050 (0.039)	-0.043 (0.036)	-0.054* (0.031)	-0.064** (0.031)	-0.020 (0.029)	-0.103*** (0.039)
Household income	0.280** (0.116)	0.218** (0.086)	0.230*** (0.088)	0.172** (0.087)	0.212** (0.086)	0.162* (0.090)
Education	-0.278*** (0.099)	-0.343*** (0.079)	-0.335*** (0.081)	-0.275*** (0.082)	-0.363*** (0.079)	-0.248*** (0.085)
Left right scale	0.112*** (0.031)	0.091*** (0.026)	0.095*** (0.026)	0.074*** (0.026)	0.082*** (0.026)	0.074*** (0.028)
Constant	-1.444*** (0.447)	-1.309*** (0.354)	-1.552*** (0.369)	-1.392*** (0.356)	-1.474*** (0.366)	-1.932*** (0.399)
Observations	878	1,404	1,351	1,398	1,394	1,315
Log Likelihood	-570.785	-922.353	-880.089	-907.446	-910.040	-845.778
Akaike Inf. Crit.	1,157.569	1,860.707	1,776.178	1,830.893	1,836.080	1,713.556

Note:

* ** *** p<0.01