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How, if at all, does motherhood affect environmental advocacy among politicians? An analysis of Swedish national parliamentarians' environmental advocacy before and after becoming mothers.

Sjoberg, Saga

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Name student: Saga Sjöberg

Student ID: s3098052

Name of supervisor: Dr. Corinna Jentsch

Name of second reader: Dr. Juan Masullo

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**How, if at all, does motherhood affect environmental advocacy among politicians?
An analysis of Swedish national parliamentarians' environmental advocacy before and
after becoming mothers.**

Saga Sjöberg (s3098052)

Bachelor's Thesis

International Relations and Organizations

Bachelor Project: Social Movements and Political Violence

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Second Reader: Dr. Juan Masullo

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1. Introduction

One step at a time, scientists across the globe have unfolded the uncomfortable reality of climate change. While its predicted consequences are closing in on humanity, a notable shift is occurring in politics. After centuries of underrepresentation, women's presence is increasing in political offices (Herre, 2024). This transition coincides with an observed yet largely unexplored trend: female politicians are more inclined to advocate for pro-environmental policies (Salamon, 2024, p. 3; Logsdon-Conradsen & Allred, 2010, p. 141; Ramstetter & Habersack, 2020, pp. 1069-1077).

Previous research has shown that women are more concerned about the environment than men, and the connection between women and nature is well-established in scholarship (Nightingale, 2006, p. 166; Morrow, 2017, p. 400). Furthermore, research has shown that motherhood appears to mobilize participation in environmental activism (Snyder & Oliva, 2022, pp. 103-106; Sze, 2017, p. 166; Logsdon-Conradsen & Allred, 2010, p. 143). However, research on mothers' environmental advocacy has mostly focused on grassroots activism. Whether a similar tendency is present at the elite political level is yet to be established. This paper, thus, investigates whether the effect of motherhood in driving environmental activism on the grassroots level is present also among politicians. It seeks to answer the following: *How, if at all, does motherhood affect environmental advocacy among politicians?*

More specifically, this study looks at how motherhood affects the environmental policy of members of the Riksdag, Sweden's national parliament. The Riksdag is directly elected for a four-year term according to a proportional representation system. It is the highest decision-making body in Sweden and the only body that can propose, decide, amend, and repeal laws. Furthermore, it is tasked with deciding on the country's budget (Sveriges riksdag, 2023a). In the 2022-2026 term, eight parties hold seats in the Riksdag (Sveriges riksdag, 2023b).

Riksdag members can submit proposals ("motions") for action or legislation (Sveriges riksdag, 2023c). Motions can be submitted by any grouping of one or more parliamentarians, from the same or different parties. Certain rules apply in regard to the content and timing of submissions. Motions are typically direct responses to proposals put forward by the government, and must consequently address the same issue and be submitted within fifteen

days of the government's proposal (Sveriges riksdag, 2023d). Once every year, however, motions can be submitted on any issue that falls within the decision-making power of the Riksdag. This is known as the General Private Members' Motions Period (hereon "General Motions Period" or "GMP"). It takes place in the fall and lasts for approximately three weeks (Sveriges riksdag, 2023e).

Using Qualitative Content Analysis, this paper reviews GMP-motions submitted by female Riksdag members before and after they went on parental leave to care for their firstborn child. The Qualitative Content Analysis will code all instances of positive and negative environmental advocacy in the relevant General Motions Periods. The study is longitudinal, comparing individual politicians with themselves over time to decrease the amount of interfering factors.

The value of this study derives from two main realities. Firstly, the growing urgency of acting on climate change, coupled with political institutions' repeated failure to meet climate goals, underscores the need for a greater understanding of conditions that foster environmentally friendly policies. Secondly, women's presence in political offices is increasing, and given that 80% of women become mothers in their lifetime, the future may see more mothers in positions of political power (O'Reilly, 2019, p. 19). As such, understanding motherhood's effect on environmental advocacy is valuable for assessing the feasibility and predicting the success of future policies. It also brings value by contributing to the broader understanding of how political representation and diversity in political offices may affect policy outcomes.

Following this introduction, I will review existing literature on the topic and define the research gap. Thereafter, based on the reviewed literature, the hypothesis is presented. The subsequent theoretical framework assesses a selection of relevant theories and examines their application to this study. After that, a methodology section explains how the hypothesis will be tested. Lastly, analysis is conducted to interpret and discuss the results, before the paper is concluded.

2. Literature Review

The connection between womanhood and nature first gained attention among feminist scholars in the 1970s through the introduction of ecofeminism (Nightingale, 2006, pp. 166-167). As such, ecofeminism is the starting point of this literature review. From there, the literature review will progress toward the topic of motherhood, as past research on motherhood in environmental activism is reviewed. Finally, I assess past research projects that align with the interests of this paper. Citing the shortcomings of these projects, the research gap is presented.

2.1. Ecofeminism: Explaining the Connection between Womanhood and Nature

In addressing the connection between womanhood and the environment, an appropriate starting point is ecofeminism; the ideology that established the link between feminism and environmentalism. The term — ecological feminism — was coined by Françoise D'Eubonne in 1974, but Carolyn Merchant is often accredited the articulation of its core tenets: women and nature are connected through the common experience of being dominated, and this domination is structural (Thompson & MacGregor, 2017, pp. 44-46).

Ecofeminism is commonly criticized for being essentialist. This critique falls into two main categories: that its essentialism reinforces stereotypical gender roles, and that it reduces women to a unidimensional entity (Thompson & MacGregor, 2017, p. 49; Merchant, 2005, p. 196; Ourkiya 2022, pp. 313, 318). In defending ecofeminism, Merchant (2005) argues that women have an innate and intimate connection with nature, but that it should not be used to reinforce stereotypical gender roles by portraying women as nurturers. She rather argues that women and nature, alike, should be freed from this expectation (p. 196). A poststructural approach is that both womanhood and nature need to be reconceptualized to be viewed as multiple and dynamic, as should their connection (Nightingale, 2006, p. 170).

2.2. Motherhood as a Motivator and Frame in Activism

Previous literature shows that women tend to be more concerned about environmental harm and more prone to seek action against it than men. Logsdon-Conradsen and Allred (2010) present a synthesis of empirical findings suggesting that women hold comparatively more environmentally friendly attitudes, perceive environmental risks as more serious, and are more proactive in environmental action (p. 141). The authors argue that the mother-role

becomes a prominent part of a woman's identity, which further fosters a desire to protect their child on multiple levels, including that of environmental harm and risk, which some mothers perceive as part of their motherly duties (p. 142). Culley and Angelique (2003) find support for this through their study on women who mobilized for higher safety standards and environmental protection following the failure of a nuclear plant. In the interviews conducted, the women frequently mentioned care for their children as motivating their participation. Hence, Culley and Angelique (2003) conclude that motherhood is a factor that motivates environmental action (pp. 453-454).

Beyond acting as a motivation, motherhood has been viewed as a way to frame activism and a tool for rhetorical use (Peeples & DeLuca, 2006, p. 69). Carreon and Moghadam (2015) conceptualize the maternalist frame as "elements of motherhood, mothering, and maternal identities deployed to evoke meanings within a given context and elicit participation and/or support of collective action" (p. 19). They further identify several historical cases where the maternalist frame has been a means of mobilization, and ultimately conclude that it may be employed by different actors for different purposes, and that its effectiveness varies with context (pp. 27-29). In the same vein, Göksel (2018) investigates what factors that make motherhood an effective frame for activism. She notes that maternal activist groups often dissipate without achieving their objectives, and ultimately finds that her own case study has yet to break this trend. However, she notes that mothers transform the political sphere they act within (p. 1). Göksel (2018) goes on to argue that this transformation is enabled by mobilization with maternal framing, which manifests as a "care for all" discourse that extends motherly care for one's family to society at large (pp. 14-16).

Investigating the rhetorical use of motherhood in environmental justice activism, Peeples and DeLuca (2006) introduce the concept of othermothering, which refers to mothers expanding their motherly care from a domestic to a communal level (p. 72). Adding to this, Thomas (2018) argues that motherhood is not only a motivation and rhetorical tool but also an organizing base for collective action, with othermothering being the unifying mechanism (pp. 297-303).

2.3. Environmental Advocacy Among Female and Mother Politicians

Despite convincing evidence that women hold more environmentally friendly attitudes than men, research on its manifestations at the elite level — within political leadership in

particular — is limited. There are however exceptions; most notably Ramstetter and Habersack's (2020) study of the environmental attitudes of female members in the Sixth and Seventh European Parliament. This contribution is unique due to the large N and quantitative approach. Collecting data through a survey and performing statistical analysis, they find that though male and female parliamentarians express similar environmental attitudes, female parliamentarians are more likely to act on these attitudes (pp. 1069-1077).

Literature on *motherhood* and environmental advocacy, however, rarely extends beyond the grassroots level. I can only find one study that somewhat aligns with the interests of this paper. It is conducted by Snyder and Oliva (2022) and focuses on a single case in the United States. It analyzes Carol Browner's leadership and actions during her time as head of the Environmental Protection Agency, 1993 to 2001 (p. 101). Snyder and Oliva (2022) ultimately find that Browner conformed to the theoretical expectation through her commitment to environmental advocacy. They further conclude that her time in office was shaped by a maternalist outlook that manifested both through her rhetoric and her role as an othermother (pp. 102-103).

2.4. The Research Gap

As demonstrated above, women's tendency to care more for the environment than their male counterparts is supported by empirical evidence and motherhood is often found to be a catalyst. Nevertheless, research has mostly been done on activism and grassroots movements, and often through discourse analyses of single cases or individuals. The only identified study that investigates how motherhood affects environmental advocacy in political leadership is that of Snyder and Oliva (2022). Furthermore, all identified studies investigate the impact of motherhood on environmental advocacy by studying women at a point in time when they already have children. No studies that systematically examine individuals' evolution over time, comparing their environmental advocacy before and after motherhood, have been found. This paper aims to investigate motherhood's effect on environmental advocacy, and doing so by employing a methodology that — to the best of my knowledge — has not been used before. I will be investigating the effect of motherhood on environmental advocacy in the context of political leadership, according to the stated research question, and do so by studying the evolution of multiple cases in a systematic manner.

3. Theoretical Framework

In accordance with the findings of related studies presented in the literature review, the hypothesis of this study is that politicians show more environmental advocacy upon becoming mothers. The shift is expected to occur, entirely or partially, through three main mechanisms: intentional or subconscious adherence to role expectations, a desire to protect the environment as a means of protecting one's child, and othermothering.

3.1. Social Identity and Role Expectations

Social identity theory

Social identity theory begins with the premise that social context significantly influences identity formation. Tajfel and Turner (2004) conceptualize social identity as the self-image that derives from one's social categorization or context. They further define a group as a "collection of individuals who perceive themselves to be members of the same social category, share some emotional involvement in this common definition of themselves, and achieve some degree of social consensus about the evaluation of their group and of their membership in it" (Tajfel & Turner, 2004, p. 283). Social categorization relies on features that distinguish members from non-members. It further serves as a cognitive tool for the creation of one's own social identity, and a shortcut for assigning values to people in their own or other groups. Further, Tajfel and Turner (2004) argue that the distinction between "us" and "them" reinforces and strengthens social and group identities (pp. 283-284).

As per the literature review above, research shows that motherhood shapes perceptions and priorities. In accordance with social identity theory, this might not only bolster the own identity but also the shared identity of mothers as a group. An additional component of social identity theory is that individuals seek to have a *positive* social identity, which is determined based on in-group comparisons (Tajfel & Turner, 2004, p. 284). In line with social identity theory, this research expects motherhood to shape social identity. It also expects mothers to strive for a positive social identity, thus motivating actions that make them "better" mothers within the group, expressed by advocating for environmental concerns to protect their children.

Social role theory

Departing from the premise that mothers constitute a group, a further expectation is that its members adhere to the role expectations associated with the group. Social role theory argues that individuals take on roles and act in accordance with the traits assigned to that particular role. Gender roles are central to social role theory, seeing as roles tend to originate from the physical and biological differences between sexes, especially from women's reproductive ability and men's physical strength. As a result, the stereotypical woman internalizes traits that are associated with motherhood, such as being nurturing and unselfish (Eagly & Wood, 2012, pp. 458-466). Social role theory further asserts that socialization reinforces gender roles by rewarding compliance and punishing deviance (pp. 459, 468).

While gender is central for role expectations, role expectations also result from, for example, workplace position and hobbies. People hold multiple roles and balance expectations accordingly. Conforming to a multitude of roles may foster some spillover, incorporating the traits from one role in the pursuit of another (Eagly & Wood, 2012, p. 469). Applying the logic of the social role theory, this research expects female politicians to increase their environmental advocacy upon becoming mothers. As their role as a politician coexists with their role as a mother, traits associated with motherhood are expected to carry over to undertakings that fall within the frames of their occupational — or other — social role.

The key difference between the two is that social identity theory considers role adherence to be a willful act of living up to or even exceeding expectations, whereas social role theory holds that role acquiescence is the result of subconscious mechanisms.

3.2. Perception and Response-Acting

Safety concerns hypothesis

The safety concerns hypothesis states that risk perception is gendered and that women are more perceptive and averse to risk than men (Ramstetter & Habersack, 2020, p. 1065; Xiao & McCright, 2012, p. 1067; Bord & O'Connor, 1997, pp. 830-839). The caretaker role coupled with high perception can, therefore, be expected to drive environmental advocacy in mothers as a means of protecting their children.

Feminist standpoint theory

Those arguing in favor of the safety concerns hypothesis are keen on distinguishing between threat perception and actual ecological sensibilities, noting that perception does not always reflect actual vulnerabilities (Xiao & McCright, 2012, p. 1071). Nevertheless, research shows that women are in fact disproportionately affected by direct and indirect environmental hazards. For example, women are less likely to have the resources necessary to handle the everyday consequences of climate change and suffer a higher risk of dying from natural disasters (MacGregor, 2009, pp. 130-131). Further, since women often are ascribed a disproportionate share of household responsibilities, as noted by MacGregor (2009), challenges that target the entire household tend to disproportionately impact women (pp. 130-131). For the same reason, mothers appear to be the first to notice environmental degradation that could pose a threat to the well-being of their children, for example by noticing poor water quality when doing laundry or cooking (Snyder & Oliva, 2022, p. 113).

The essence of the feminist standpoint theory is that those with first-hand experience of a situation are in a position to more accurately perceive it (Gurung, 2021, pp. 108, 113). Given that women, especially mothers, are more exposed to the consequences of climate change, this group is expected to be in a position to more accurately sense environmental threats, potentially motivating a response they deem appropriate (Bee, 2015, p. 148).

3.3. Othermothering

Othermothering refers to the extension of motherly care from a domestic to a communal level. This is the result of socialization into the mother role, and the skills and traits it fosters. These include being mindful of potential threats and being able to reason and organize accordingly (Peeples & DeLuca, 2006, p. 72). Othermothering is not limited to caring for other humans but may also entail addressing community-wide problems that threaten the well-being of society at large (Thomas, 2018, p. 297). Therefore, the expectation is that politicians' environmental advocacy increases after they become mothers as a manifestation of their motherly traits extending to the communal level.

4. Methodology

4.1. Research Design

This study will employ Qualitative Content Analysis to compare the motions submitted by a sample of Swedish parliamentarians before and after becoming mothers. The subjects are female parliamentarians who had their first child while holding a seat in the Riksdag, with their parental leave marking when they became mothers. By comparing the politicians with themselves over time, more factors are controlled for than would be the case in a cross-case comparison. As the politicians are the same people before and after they go on maternity leave, virtually all factors that can be controlled for are, including but not limited to educational attainment, political affiliation, and upbringing. The unit of analysis is the politicians' stances in terms of environmental politics, conceptualized as proposals for pro-environmental policy or lack thereof.

Politicians' respective stances will be identified through examination of opinions and suggestions communicated in motions submitted during the Riksdag's annual General Motions Period. Because of the freedom granted during the General Motions Period, I anticipate that these motions more accurately reflect parliamentarians' stances, compared to motions submitted in response to propositions, as is normally the case (Sveriges riksdag, 2023e). More specifically, the General Motions Periods in question are those closest before and after each parliamentarians' parental leave. Employing the narrowest time span possible aims to minimize the effect of confounding variables, thus more accurately show the effect of motherhood. Naturally, this also limits the scope and ensures that each parliamentarian had the same amount of time to submit their motions.

All motions begin with bullet points outlining one or more suggestions, which are then explained and justified in a subsequent motivation section. Data will be collected exclusively from the motivation section since its elaborate nature allows for a more nuanced analysis. The bullet point lists will be discarded to avoid data duplication. Furthermore, motions vary in length and scope; while some contain one suggestion, others present several. All relevant suggestions will be coded, observing the coding scheme in Figure 1.

Coded material can range from single sentences to entire sections. Coding is divided into four categories, with the codes representing different levels of environmental advocacy. This aims

to deepen analysis by ensuring that more substantial ambitions in either direction are reflected in the data and subsequent analysis.

Environmental advocacy, used interchangeably with pro-environmental or environmentally friendly initiatives, is conceptualized as behavior that minimizes harm to the environment or even benefits it. It involves limiting greenhouse gas emissions and natural resource waste as well as promoting behavior that aids environmental sustainability. This study also measures environmentally harmful or anti-environmental expressions, conceptualized as opposition to pro-environmental initiatives, advocacy for initiatives that catalyze greenhouse gas emissions or waste of natural resources, or other environmentally unsustainable behavior (Tian & Liu, 2022, p. 2).

Note that positive environmental advocacy (pos+ and pos-) is only coded if the suggestion cites environmental concern, as specified in Figure 1. This is to ensure that environmental advocacy is an actual motivation and to avoid coding suggestions that may unintentionally benefit the environment. However, the same does not hold for proposals coded as negative (neg+ and neg-), where explicit anti-environmental references are not required. This is simply because harming the environment is generally not a self-standing intention, but rather a side effect. As such, it is not expected to be stated as the motivation.

Qualitative Content Analysis will be used because it is well-suited for the purpose of this research since it enables tracking of changes in textual content over time. It further allows for nuanced and contextual interpretation of texts, enabling relatively thorough understanding. Qualitative Content Analysis' systematic nature also allows replicability and consistency in data collection, making findings more reliable and thus valuable (Halperin & Heath, 2020, pp. 364-392).

Figure 1: Qualitative Content Analysis coding scheme.

Code	Description	Examples	Ambition Level
Pos+	Proposals to adopt pro-environmental measures, citing environmental concern. Can be through direct legal action or enforcement, or by providing incentives for pro-environmental behavior or technology.	<p>Proposals to limit deforestation, prevent erosion, ban fracking, impose stricter emissions standards for vehicles, enforce harsher punishment for non-compliance with environmental laws, enforce wildlife protection.</p> <p>Proposals for economic/fiscal incentives like funding renewable energy research, subsidizing renewable energy sources, investing in bike infrastructure, enforcing tax breaks for electric vehicles.</p> <p>Organizational proposals like altering budget allocation in a more pro-environmental direction, assigning more environmental responsibilities to a new or existing government agency, or joining a pro-environmental international agreement.</p> <p>Proposals to invest in train and bike infrastructure, public transport, recycling facilities.*</p>	High
Pos-	Pro-environmental sentiments or support for environmentally friendly activities — citing environmental concern — without it being the focus of the motion (Note: not presentation of information or prior achievements - must be normative).	<p>Statements endorsing pro-environmental practices, like the ones listed above, without detailing actions or strategies for implementation.</p> <p>Mentions of environmental benefit as a side effect.</p> <p>Concerns for environmental harm mentioned as a side note.</p>	Low
Neg-	Anti-environmental sentiments without proposing action (Note: not presentation of information - must be normative).	<p>Statements like "environmental regulations are too strict", "economic growth should be prioritized over a healthy wolf population."</p> <p>Endorsing environmentally harmful measures used historically.</p>	Low
Neg+	Proposals for the government to adopt environmentally harmful measures, either through direct legal action or enforcement, or by providing incentives for environmentally harmful behavior or technology.	<p>Proposals to abandon pro-environmental programs or agreements, dissolve protected environmental zones, stop funding for climate change research, subsidize air travel, enforce tax breaks for or subsidize non-renewable energy sources, reduce restrictions on logging, cut funding for environmental initiatives, increase support for air traffic.*</p>	High

* Research shows that road travel and aviation are major contributors to CO₂ emissions, while rail travel emits significantly less, making it a more environmentally friendly option (Ritchie, 2020). Proposals for road, air, and rail travel will be coded in accordance with this broadly agreed-upon science, coding rail travel as environmentally friendly, and air and road travel (with non-electric vehicles) as environmentally harmful.

4.2. Case Selection and Sampling Strategy

Some key factors make the Swedish Riksdag ideal for this study. Parental leave is paid and common practice. While both parents are entitled to take turns enjoying this benefit, mothers generally go first, starting right as the child is born (Försäkringskassan, 2023). Parental leave, thus, provides a clear indication of when the parliamentarian became a mother and serves as a viable break between pre-motherhood and motherhood. Further, parliamentarians' parental leave is well documented, and the information is publicly available.

A list of Riksdag members that have been on parental leave constitutes the body of potential cases for this study. I obtained the list from the Riksdag's information services (Riksdagsinformation) after requesting it via email. It lists all parental leaves since 2006, and specifies the exact dates as well as substituting parliamentarians. The list indicates that some parliamentarians divided their parental leave into several shorter periods — a few weeks or months at a time — while others took the whole leave in one consecutive block. In instances where the parental leave is spread out, the start of the first period and the end of the final period will serve as the start and end dates. This is to ensure that the parliamentarians investigated were fully back to work and present for the entirety of the General Motions Period of interest.

Through application of certain criteria, a sample of Riksdag members will be drawn from the list. Because the dependent variable of this research is motherhood, the first criterion is that they must have given birth to their firstborn while serving in the Riksdag, meaning there is a period of them in the Riksdag before and after having children. They must also have started the position in or after 2010. The first criterion is central to the validity of the research, while the latter applies for practical reasons; limiting the sample to a reasonable yet sufficient scope, while also keeping the data as recent as possible.

The sampling strategy is also shaped by information access. The list does not indicate whether or not a parental leave was to care for a firstborn child. To acquire this crucial information, I will contact the parliamentarians who fulfill the prior criteria. The emails will be sent to their work addresses, as available on the government website, to ensure that they are contacted on similar terms. This introduces an additional dimension to the sample: only

parliamentarians who are currently serving in parliament have publicly available email addresses, and will thus be contacted.

4.3. Data Collection

The Riksdag collects and publishes all motions submitted by Riksdag members. They are available on the Swedish government website, “[riksdagen.se](https://www.riksdagen.se)”. Motions is an appropriate document type for this research due to their relative abundance and the freedom granted in writing them, which allows for clear reflection of parliamentarians’ opinions. Moreover, motions typically present context, background information, and detail, thereby offering some insight into parliamentarians’ thinking and rationale. As such, motions are expected to be more representative of stance than for example speeches, where rhetoric and time constraints may affect the content.

As explained in the introduction, motions can be submitted by one or more parliamentarians (Sveriges riksdag, 2023d). Limiting data collection to individual motions would allow for its content to be exclusively attributed to each single parliamentarian, thereby generating reliable data. However, individual motions are found to address mostly low-profile and niche topics. In contrast, salient topics tend to attract multiple signatories. Limiting the scope to individual motions would overlook opinions on more salient issues, misrepresenting parliamentarians’ priorities. Therefore, both individual and joint motions will be analyzed. Importantly, all signatories of a motion are equally responsible for its content, as was explained in an email from the government’s information services (Riksdagsinformation).

5. Analysis

A total of 51 parliamentarians fulfilled all aforementioned criteria and were contacted over email. A deadline for their response was set to May 15, 2024, to ensure that analysis could be started in a timely manner. Twelve parliamentarians responded before the deadline and confirmed that the documented parental leave in question was indeed to take care of their firstborn. Altogether, the twelve parliamentarians submitted 554 motions over the General Motions Periods of interest (see Appendix 1). The final sample of parliamentarians also decides the timeframe of the study, which ultimately spans from December 2014 to May 2023.

Below, I first present the results from the Qualitative Content Analysis (see Figure 2). The data is then analyzed numerically using the Environmental Advocacy Index, before a theoretical analysis links the findings back to the theoretical framework. Lastly, the results are discussed and alternative explanations are explored.

5.1. Results

Figure 2: Results of the Qualitative Content Analysis.

Name and political affiliation*	Period	Total motions	Pro-environmental motions**	Pos+	Pos-	Neg-	Neg+
Aylin Nouri (S)	Before	15	2	3	0	0	0
	After	15	6	2	4	0	0
Anna Wallentheim (S)	Before	20	1	1	0	0	0
	After	17	2	2	0	0	0
Hanna Westerén (S)	Before	36	5	7	0	1	1
	After	28	4	4	1	1	1
Sanne Lennström (S)	Before	11	4	6	3	0	0
	After	10	2	2	1	0	0
Jessica Rosencrantz (M)	Before	5	4	15	11	1	3
	After	14	13	116	35	11	20
Ulrika Heindorff (M)	Before	38	8	8	9	0	6
	After	24	6	12	4	0	1
Louise Meijer (M)	Before	44	7	5	5	0	1
	After	50	4	5	10	0	3
Ida Drougge (M)	Before	26	0	0	0	0	2
	After	33	2	1	2	0	2
Rebecka Le Moine (MP)	Before	16	11	90	10	0	0
	After	33	21	191	8	0	0
Annika Hirvonen Falk (MP)	Before	11	1	2	0	0	0
	After	31	5	67	14	0	0
Nooshi Dadgostar (V)	Before	8	0	0	0	0	0
	After	26	1	1	3	0	0
Linda Snecker (V)	Before	9	1	1	0	0	0
	After	34	8	58	20	0	0

* S = Social Democrats, M = Moderates; liberal-conservative, MP = Green Party, V = Left Party

** Containing any pos- and/or pos+

5.2. Numerical Analysis

The different levels of environmental advocacy are assigned different values (see Figure 3). Higher levels of advocacy are assigned higher values, and vice versa. These values are used in the Environmental Advocacy Index, where they are multiplied by the number of times the respective code occurs, and then divided by the total motions submitted by the parliamentarian in that GMP (see Figure 4). Higher index scores reflect higher levels of environmental advocacy. The baseline for the calculation is 0, and there are no upper or lower boundaries to the index. A benefit of the Environmental Advocacy Index is that it neutralizes the effect of different volumes of proposals submitted during the respective General Motions Periods. It also aids comprehensive longitudinal comparison by compiling all observations in one representative number.

Figure 3: Values assigned to the levels of environmental advocacy.

Level of Advocacy	
Strong positive / pos+	2
Weak positive / pos-	1
Weak negative / neg-	-1
Strong negative / neg+	-2

Figure 4: Environmental Advocacy Index formula.

$$\text{Environmental Advocacy Index Score} = \frac{2(\text{pos+}) + 1(\text{pos-}) + (-1)(\text{neg-}) + (-2)(\text{neg+})}{\text{total motions submitted by politician in that GMP}}$$

Figure 5: Environmental Advocacy Index scores. Calculations are detailed in Appendix 2.

Name	Environmental Advocacy		Difference
	Before motherhood	After motherhood	
Aylin Nouri	0.4	0.53	+0.13
Anna Wallentheim	0.1	0.24	+0.14
Hanna Westerén	0.31	0.21	-0.1
Sanne Lennström	1.36	0.5	-0.86
Jessica Rosencrantz	6.8	15.43	+8.63
Ulrika Heindorff	0.34	1.08	+0.74
Louise Meijer	0.3	0.28	-0.02
Ida Drougge	0.15	0	-0.15
Rebecka Le Moine	11.88	11.82	-0.06
Annika Hirvonen Falk	0.36	4.78	+4.42
Nooshi Dadgostar	0	0.19	+0.19
Linda Snecker	0.22	4	+3.78

The results are ambiguous, as can be seen in Figure 5. For some parliamentarians, such as Jessica Rosencrantz, Annika Hirvonen Falk, and Linda Snecker, environmental advocacy increased significantly after becoming a mother. Meanwhile, others demonstrate negative developments. Positive developments are, however, generally of a significantly greater magnitude than negative developments: the average increase measures +2.58 while the average decrease measures -0.24. Nevertheless, seven politicians had a positive difference and five did not. This suggests that motherhood has a slight positive effect on environmental advocacy, but only marginally. While the results do point in the general direction of the hypothesis, they are not strong enough to meaningfully support the hypothesis.

5.3. Theoretical Analysis

The theoretical framework introduced five theories hypothesized to partially or entirely explain how motherhood affects environmental advocacy among politicians. Next, I will assess the applicability of these theories to the results of the study.

Social identity and role expectations

Both social identity theory and social role theory depart from the premise that women, and mothers in particular, are typically perceived as caregivers and nurturers (Eagly & Wood, 2012, pp. 458-466). Social identity theory implies that mothers strive for a positive identity within their group, while social role theory suggests that role expectations shape behavior subconsciously. Evaluating the applicability of these theories is complicated by the professional kept in Riksdag motions, which tends to keep anecdotes and details from the personal life to a minimum. However, known context alongside trends observed in the numerical analysis allows for exploration of implicit motivations.

Unlike high-ambition attitudes (pos+), low-ambition attitudes (pos-) lack concrete calls for action. Low-ambition attitudes may thus reflect performative rather than genuine environmental advocacy. Unsurprisingly, the data suggests linkages between party affiliation and level of ambition. The Moderate Party, leading the conservative right-wing alliance in government since 2022, has faced criticism for its lack of concrete climate action policies (Natuskyddsföreningen, 2023). The critique surged in March 2024 when the Swedish Environmental Protection Agency's annual climate report revealed that the current policy landscape is insufficient for Sweden to achieve its established climate goals (Sveriges miljömål, 2024).

Members of the Moderate party — especially Rosencrantz, Heindorff, and Meijer — demonstrate low climate ambitions (pos-) both before and after motherhood. While parliamentarians are not satellites of their respective parties, a party's official stance presumably correlates relatively well with those of their representatives. As the Moderate Party seems comparatively disinterested in climate-related questions, it makes sense that this would be reflected in their politicians' environmental advocacy, explaining the low ambition observed.

Social identity and role expectations may motivate politicians to ramp up environmental advocacy after becoming mothers. However, only seven out of twelve politicians have the positive environmental advocacy differences to support this, of which only three have a significant increase in scores post-motherhood. Even if the social identity and social role theories might explain some effect, this effect is not clearly visible in this study.

Alternatively, the expected effects might well be present but outweighed by untreated and confounding variables.

Nevertheless, this does not mean that the theories are wrong per se. The theories may still explain the positive developments observed in seven out of twelve cases, and it should be noted that this study does not test what mechanisms are at play, but rather tests whether the expected end change is present, and applies the theorized mechanisms for analysis purposes. In this regard, the results are unclear. Jessica Rosencrantz, for example, almost exclusively submitted pro-environmental motions, while Sanne Lennström significantly reduced pro-environmental engagement, post-motherhood. Interestingly, these politicians represent the same party.

Even if a slight majority of cases have a positive change the average change is clearly positive, the differences vary wildly, indicating that motherhood probably does not have a large effect on environmental advocacy in elite politicians. This, in turn, means that the study does not only provide reason to question the hypothesis. It also provides reason to question if the social identity and social role theories operate in this context.

Possible explanations for the discrepancy between earlier research on motherhood and environmental activism and the relatively small effect seen here could also be that the association between environmental protection and motherly duties is less clear than previously argued. Regardless, social identity and social role theories may have an effect on other domains of motherhood. For example, the analysis of Annika Hirvonen Falk's post-motherhood motions revealed a significant increase in concerns related to children's well-being. This could potentially be explained by either of the social identity or social role theories.

Perception and response-acting

The safety concerns hypothesis posits that women are more prone to perceiving threats. The sensitivity to perceiving risks is expected to reflect in a desire to care for their children, thus manifesting through environmental protection. Feminist standpoint theory extends the narrative by acknowledging that it might not just be that women perceive risks more easily, but that the risks perceived may be grounded in a more informed perception of reality. Applying the feminist standpoint theory, mothers — with their traditional role as the main

caregiver — are expected to hold an advantageous position to detect factors that threaten their children's well-being.

In the motions viewed, some politicians increasingly present their environmental concerns in a risk management context post-motherhood. For instance, Linda Snecker argues that climate change “should be granted more attention in Sweden's planning for crisis preparedness” (Sjöstedt, et al., 2016, p. 7).¹ Snecker also submitted a motion urging stricter legislation on fireworks, citing both environmental and safety concerns (Johnsson Fornarve, et al., 2016, p. 1).² This offers some support for threat perception driving not only environmental concern but policy in general.

Yet again, however, because only a marginal majority of politicians adhere to the expectation, this study presents limited support for both the idea that women's environmental advocacy changes with motherhood, and the mechanisms proposed. Worth emphasizing is, however, that there is some evidence that politicians increasingly frame their environmental advocacy as a safety issue post-motherhood, as exemplified above.

Applying the safety concerns hypothesis and feminist standpoint theory, a further expectation is for risk management to become more prominent also in domains beyond the environment. While this study does not systematically analyze this, there is a noteworthy increase in motions on risk management post-motherhood. However, many of these instances regard pandemic management, explicitly citing the COVID-19 pandemic. As such, this indicates that the primary motivation is a broader societal context rather than motherhood.

Othermothering

Like the other theories discussed, the weak support for the hypothesized relationship between motherhood and environmental advocacy implies that othermothering is not particularly significant in yielding environmental advocacy in elite politicians.

However, a tendency broadly observed is that children are more often addressed in motions submitted post-motherhood. This is particularly evident for Annika Hirvonen Falk, as mentioned above. After becoming a mother, her motions increasingly focus on policies that

¹ Translated by the author.

² Translated by the author.

regard children's family situations, schooling, and mental health, which may well support some notion of othermothering.

Additionally, Annika Hirvonen Falk submitted three times as many motions in the General Motions Period post-motherhood compared to the one prior (see Figure 2). This increase in the absolute number of motions submitted signals greater proactiveness, and potentially a heightened desire to achieve change. This may also be a manifestation of othermothering. Aylin Nouri also submitted more motions concerning children post-motherhood, without changing the number of total motions submitted, further supporting some form of othermothering. Anna Wallentheim, in contrast, shows roughly the same commitment to children's well-being both before and after becoming a mother.

5.4. Discussion

Seven out of twelve politicians show comparatively more environmental advocacy after becoming mothers than before, which gives some support for the hypothesis. While this heightened environmental advocacy may result from any or several of the mechanisms proposed, other factors may explain these observations just as well. For example, increased environmental advocacy may be motivated by the increasing urgency for climate action and its subsequent attention in media and politics. It may also be motivated by the consequences of global warming becoming successively more noticeable, for example through forest fires, floods, and other extreme weather events.

Moreover, changes in environmental advocacy could potentially be explained by party affiliation. For instance, a party's agenda might alter or reinforce its members' preexisting opinions. Hence, if a party agenda shifts, it might foster changes in opinions of individual party members as well. It could also happen through more intentional acts such as party members' actively wanting to stay committed to a party's shifting agenda.

While similar outcomes may be expected from party colleagues, this notion does not fit with the data. Only the Green Party demonstrates change in a unified direction for respective members, as both Annika Hirvonen Falk and Rebecka Le Moine increased their environmental advocacy post-motherhood. The remaining parties all have some members whose development was positive and some whose development was negative. This suggests

that party affiliation does not have a clear-cut effect on environmental advocacy. If an effect is present, it seems to be outweighed by other factors.

The unified stance of Annika Hirvonen Falk and Rebecka Le Moine further highlights the potential significance of party composition in the sample. If the development shown by these politicians is representative of Green Party parliamentarians at large, a sample with a high Green Party presence could have generated results that more closely align with the hypothesis.

Furthermore, the viewed parliamentarians have shifted what legislative committees they have been part of between sessions, which might also shape the individual's policy focus, which the study does not control for. Additionally, parliamentarians are often appointed to several committees simultaneously. Working in a committee may reflect or generate certain interests, and thus alter the motions submitted. As such, changes in environmental advocacy could also derive from their position on a new committee.

6. Conclusion

This study investigated how motherhood affects environmental advocacy among politicians. In line with past research, I hypothesized that environmental advocacy would increase with motherhood. Three mechanisms were expected to drive this shift: intentional or subconscious adherence to role expectations, a desire to protect the environment as a means of protecting one's child, and othermothering. The focus was to test if the hypothesized change is present. The three mentioned mechanisms were not tested but rather aided the analysis of the results.

The hypothesis was tested through a longitudinal comparative Qualitative Content Analysis on motions submitted by twelve Swedish Riksdag members who became mothers while serving in office. I further formulated the Environmental Advocacy Index to interpret and present the data in a comprehensive manner. Contrary to the hypothesis, the results posit that motherhood does not have a clear or strong effect on environmental advocacy among politicians. This finding is somewhat surprising as it is contradictory or at least non-confirmatory of the wider academic literature on the topic.

Ultimately, the findings of this study are representative of this specific sample, but not of the Riksdag at large. Some parties are not represented in the sample at all, while others are overrepresented. A sample mirroring the party composition of the Riksdag could yield results that more accurately capture the hypothesized effect, if present. However, given the constraints involved, this limitation was inescapable. In the same vein, these results' universal applicability should not be overstated. While they may be valid in countries with a similar social, economic, and political status to that of Sweden, further research would be needed to establish their usefulness beyond that.

While this paper compared the subjects to themselves over time, future research could also enrich the literature by conducting cross-case comparisons. Such a study would benefit from a different metric for numerical analysis, looking at relative rather than absolute change. This would scale the results to the respective baseline value and thereby yield more standardized numbers for comparison. Moreover, it could be interesting for future research to study how parenthood affects environmental advocacy in male politicians.

Given the growing threat posed by climate change, understanding of the political conditions that foster pro-environmental policies is of utmost importance. While this research indicates that environmental advocacy increases with motherhood among politicians, the results are not convincing, and the research question cannot be confidently answered. Nevertheless, the findings may still serve as a foundation for future research on this increasingly critical topic.

7. Bibliography

- Bee, B. (2015). Who Reaps What is Sown? A Feminist Inquiry into Climate Change Adaptation in Two Mexican Ejidos. *ACME: An International Journal for Critical Geographies*, 12(1), 131–154. <https://doi.org/10.14288/acme.v12i1.955>
- Bord, R. J., & O'Connor, R. E. (1997). The Gender Gap in Environmental Attitudes: The Case of Perceived Vulnerability to Risk. *Social Science Quarterly*, 78(4), 830-840. <https://www.jstor.org/stable/42863734>
- Carreon, M. E., & Moghadam, V. M. (2015). “Resistance is Fertile”: Revisiting maternalist frames across cases of mobilization. *Women's Studies International Forum*, 51, 19–30. <https://doi.org/10.1016/j.wsif.2015.04.002>
- Culley, M. R., & Angelique, H. L. (2003). Women's Gendered Experiences as Long-Term Three Mile Island Activists. *Gender & Society*, 17(3), 445-461. <https://doi.org/10.1177/0891243203017003009>
- Eagly, A. H., & Wood, W. (2012). Social role theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 458–476). Sage Publications Ltd. DOI: 10.4135/9781446249222.n49
- Försäkringskassan. (2024, March 13). *Delas föräldrapenningdagarna jämförda?* <https://www.forsakringskassan.se/statistik-och-analys/barn-och-familj/statistik-inom-omradet-barn-och-familj---foraldrapenning/delas-foraldrapenningdagarna-jamstall#:~:text=Under%202023%20betalade%20F%C3%B6rs%C3%A4kringskassan%20ut,dagarna%20tagits%20ut%20av%20m%C3%A4n>.
- Gurung, L. (2021). Feminist Standpoint Theory: Conceptualization and Utility. *Dhaulagiri Journal of Sociology and Anthropology*, 14, 106-115. DOI: 10.3126/dsaj.v14i0.27357
- Göksel, N. (2018). Losing the One, Caring for the All: The Activism of the Peace Mothers in Turkey. *Social Sciences*, 7(10). <https://doi.org/10.3390/socsci7100174>
- Halperin, S., & Heath, O. (2020). 14: Textual Analysis. *Political Research: Methods and Practical Skills*. (pp. 364-392). Oxford University Press.
- Herre, B. (2024, March 8). *Women have made major advances in politics — but the world is still far from equal*. OurWorldInData.org. <https://ourworldindata.org/women-political-advances>
- Johnsson Fornarve, L., Dadgostar, N., Karlsson, M., Snecker, L., Dinamarca, R., Rågsjö, K., & Sydow Mölleby, M. (2016). *Motion till riksdagen 2016/17:262: Fyrverkerier*. <https://data.riksdagen.se/fil/77D7E2A3-219D-4AF4-B625-97F3247EFF80>

- Logsdon-Conradsen, S., & Allred, S. (2010). Motherhood and Environmental Activism: A Developmental Framework. *Ecopsychology*, 2(3), 141-146.
https://www.researchgate.net/publication/270835938_Motherhood_and_Environmental_Activism_A_Developmental_Framework
- MacGregor, S. (2009). A Stranger Silence Still: The Need for Feminist Social Research on Climate Change. *The Sociological Review*, 57(2), 124-140.
<https://doi-org.ezproxy.leidenuniv.nl/10.1111/j.1467-954X.2010.01889.x>
- Morrow, K. (2017). Changing the Climate of Participation: The gender constituency in the global climate change regime. In *Routledge Handbook of Gender and Environment* (1st ed., pp. 398–411). Routledge. <https://doi.org/10.4324/9781315886572-28>
- Naturskyddsforeningen. (2023, December 21). *En klimathandlingsplan utan handling*.
<https://www.naturskyddsforeningen.se/artiklar/en-klimathandlingsplan-utan-handling/>
- Nightingale, A. (2006). The Nature of Gender: Work, Gender, and Environment. *Environment and Planning D: Society and Space*, 24(2), 165-185. <https://doi.org/10.1068/d01k>
- O'Reilly, A. (2019). Matricentric Feminism: A Feminism for Mothers. *Journal of the Motherhood Initiative*, 10(1/2), 13-26.
<https://jarm.journals.yorku.ca/index.php/jarm/article/view/40551>
- Peeples, J. A., & DeLuca, K. (2006). The Truth of the Matter: Motherhood, Community and Environmental Justice. *Women's Studies in Communication*, 29(1), 59-87. DOI: 10.1080/07491409.2006.10757628
- Ramstetter, L., & Habersack, F. (2020). Do women make a difference? Analysing environmental attitudes and actions of Members of the European Parliament. *Environmental Politics*, 29(6), 1063–1084. DOI: 10.1080/09644016.2019.1609156
- Ritchie, H. (2020). *Cars, planes, trains: where do CO₂ emissions from transport come from?* OurWorldInData.org. <https://ourworldindata.org/co2-emissions-from-transport>
- Salamon, H. (2024). The “Women’s Representation-Corruption Link” and Environmentalism: A Cross-National Study. *Political Studies*, 1-23. DOI: 10.1177/00323217231224964
- Sjöstedt, J., Holm, J., Rågsjö, K., Sydow Mölleby, M., Karlsson, M., Sneaker, L., & Henriksson, S. (2016). *Motion till riksdagen 2016/17:159: En aktiv freds- och säkerhetspolitik*.
<https://data.riksdagen.se/fil/D7CF01D8-AA08-4EB6-8EC3-AB19D708C634>
- Snyder, B., & Oliva, M. (2022). A Maternal Brand of Environmentalism: Carol Browner’s Gendered Leadership of the Environmental Protection Agency. *Journal of Women’s History*, 34(4), 101-124. <https://doi.org/10.1353/jowh.2022.0038%20A>

- Sveriges miljömål. (2024, March 28). *Årlig uppföljning 2024*.
<https://sverigemiljomal.se/sa-fungerar-arbetet-med-sveriges-miljomal/uppfoljning-av-miljomalen/arlign-uppfoljning-2024/>
- Sveriges riksdag. (2023d, April 28). *Beslutar om lagar*.
<https://www.riksdagen.se/sv/sa-fungerar-riksdagen/riksdagens-uppgifter/beslutar-om-lagar/#allman-motionstid-pa-hosten-13>
- Sveriges riksdag. (2023c, April 3). *Elections to the Riksdag*.
<https://www.riksdagen.se/en/how-the-riksdag-works/democracy/elections-to-the-riksdag/>
- Sveriges riksdag. (2023e, September 11). *The general private members' motions period*.
<https://www.riksdagen.se/en/news/the-general-private-members-motions-period/>
- Sveriges riksdag. (2023b, November 1). *The parties in the Riksdag*.
<https://www.riksdagen.se/en/members-and-parties/the-parties-in-the-riksdag/>
- Sveriges riksdag. (2023a, April 4). *What does the Riksdag do?*
<https://www.riksdagen.se/en/how-the-riksdag-works/what-does-the-riksdag-do/>
- Sze, J. (2017). Gender and Environmental Justice. In *Routledge Handbook of Gender and Environment* (1st ed., pp. 159–168). Routledge.
<https://doi.org/10.4324/9781315886572-11>
- Tajfel, H., & Turner, J. C. (2004). The Social Identity Theory of Intergroup Behavior. In *Political Psychology* (pp. 276–293). Psychology Press.
<https://doi.org/10.4324/9780203505984-16>
- Thomas, C. S. (2018). The Mothers of East Los Angeles: (Other)Mothering for Environmental Justice. *Southern Communication Journal*, 83(5), 293-309. DOI: 10.1080/1041794X.2018.1488986
- Thompson, C., & MacGregor, S. (2017). The Death of Nature: Foundations of ecological feminist thought. In *Routledge Handbook of Gender and Environment* (1st ed., pp. 43–53). Routledge. <https://doi.org/10.4324/9781315886572-3>
- Tian, H., & Lui, X. (2022). Pro-Environmental Behavior Research: Theoretical Progress and Future Directions. *International Journal of Environmental Research and Public Health*. 19(11), 1-16. <https://doi.org/10.3390/ijerph19116721>.
- Xiao, C., & McCright, A. M. (2012). Explaining Gender Differences in Concern about Environmental Problems in the United States. *Society & Natural Resources*, 25(11), 1067–1084. DOI: 10.1080/08941920.2011.651191

8. Appendix 1: Sample Details

Figure 6: Parliamentarians' start date in parliament, parental leave, and relevant respective General Motions Periods.

Name	Start in Parliament	Parental leave start date	Parental leave end date	Include proposals submitted during following GMP:	
				Before parental leave	After parental leave
Aylin Nouri	2018-09	2021-07-01	2021-12-17	2020	2022
Anna Wallentheim	2014-09	2016-07-01	2017-03-05	2015	2017
Hanna Westerén	2015-09	2017-10-09	2018-07-15	2017	2018
Sanne Lennström	2018-09	2017-04-24	2017-12-31	2016	2018
Jessica Rosencrantz	2010-09	2018-08-26	2020-05-03	2017	2020
Ulrika Heindorff	2018-09	2020-11-02	2022-05-29	2020	2022
Louise Meijer	2018-09	2020-12-29	2021-07-01	2020	2021
Ida Drougge	2014-09	2016-08-01	2017-01-31	2015	2017
Rebecka Le Moine	2018-09	2021-09-19	2022-05-15	2020	2022
Annika Hirvonen Falk	2014-09	2015-12-11	2018-04-30	2015	2018
Nooshi Dadgostar	2014-09	2019-08-19	2020-02-29	2018	2020
Linda Snecker	2014-09	2015-03-17	2015-12-31	2014	2016

9. Appendix 2: Environmental Advocacy Index Calculations

$$\text{Aylin Nouri's Environmental Advocacy Before} = \frac{2(3) + 1(0) + (-1)(0) + (-2)(0)}{15} = 0.4$$

$$\text{Aylin Nouri's Environmental Advocacy After} = \frac{2(2) + 1(4) + (-1)(0) + (-2)(0)}{15} = 0.53$$

$$\text{Anna Wallentheim's Environmental Advocacy Before} = \frac{2(1) + 1(0) + (-1)(0) + (-2)(0)}{20} = 0.1$$

$$\text{Anna Wallentheim's Environmental Advocacy After} = \frac{2(2) + 1(0) + (-1)(0) + (-2)(0)}{17} = 0.24$$

$$\text{Hanna Westerén's Environmental Advocacy Before} = \frac{2(7) + 1(0) + (-1)(1) + (-2)(1)}{36} = 0.31$$

$$\text{Hanna Westerén's Environmental Advocacy After} = \frac{2(4) + 1(1) + (-1)(1) + (-2)(1)}{28} = 0.21$$

$$\text{Sanne Lennström's } \textit{Environmental Advocacy Before} = \frac{2(6) + 1(3) + (-1)(0) + (-2)(0)}{11} = 1.36$$

$$\text{Sanne Lennström's } \textit{Environmental Advocacy After} = \frac{2(2) + 1(1) + (-1)(0) + (-2)(0)}{10} = 0.5$$

$$\text{Jessica Rosencrantz's } \textit{Environmental Advocacy Before} = \frac{2(15) + 1(11) + (-1)(1) + (-2)(3)}{5} = 6.8$$

$$\text{Jessica Rosencrantz's } \textit{Environmental Advocacy After} = \frac{2(116) + 1(35) + (-1)(11) + (-2)(20)}{14} = 15.43$$

$$\text{Ulrika Heindorff's } \textit{Environmental Advocacy Before} = \frac{2(8) + 1(9) + (-1)(0) + (-2)(6)}{38} = 0.34$$

$$\text{Ulrika Heindorff's } \textit{Environmental Advocacy After} = \frac{2(12) + 1(4) + (-1)(0) + (-2)(1)}{24} = 1.08$$

$$\text{Louise Meijer's } \textit{Environmental Advocacy Before} = \frac{2(5) + 1(5) + (-1)(0) + (-2)(1)}{44} = 0.3$$

$$\text{Louise Meijer's } \textit{Environmental Advocacy After} = \frac{2(5) + 1(10) + (-1)(0) + (-2)(3)}{50} = 0.28$$

$$\text{Ida Drougge's } \textit{Environmental Advocacy Before} = \frac{2(0) + 1(0) + (-1)(0) + (-2)(2)}{26} = -0.15$$

$$\text{Ida Drougge's } \textit{Environmental Advocacy After} = \frac{2(1) + 1(2) + (-1)(0) + (-2)(2)}{33} = 0$$

$$\text{Rebecka Le Moine's } \textit{Environmental Advocacy Before} = \frac{2(90) + 1(10) + (-1)(0) + (-2)(0)}{16} = 11.88$$

$$\text{Rebecka Le Moine's } \textit{Environmental Advocacy After} = \frac{2(191) + 1(8) + (-1)(0) + (-2)(0)}{33} = 11.82$$

$$\text{Annika Hirvonen Falk's } \textit{Environmental Advocacy Before} = \frac{2(2) + 1(0) + (-1)(0) + (-2)(0)}{11} = 0.36$$

$$\text{Annika Hirvonen Falk's } \textit{Environmental Advocacy After} = \frac{2(67) + 1(14) + (-1)(0) + (-2)(0)}{31} = 4.78$$

$$\text{Nooshi Dadgostar's } \textit{Environmental Advocacy Before} = \frac{2(0) + 1(0) + (-1)(0) + (-2)(0)}{8} = 0$$

$$\text{Nooshi Dadgostar's } \textit{Environmental Advocacy After} = \frac{2(1) + 1(3) + (-1)(0) + (-2)(0)}{26} = 0.19$$

$$\text{Linda Snecker's } \textit{Environmental Advocacy Before} = \frac{2(1) + 1(0) + (-1)(0) + (-2)(0)}{9} = -0.22$$

$$\text{Linda Snecker's } \textit{Environmental Advocacy After} = \frac{2(58) + 1(20) + (-1)(0) + (-2)(0)}{34} = 4$$