The European Commission: A champion of environmental protection? A research on the evolution of environmental policy in the European Union

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Bachelor Thesis

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Introduction

Environmental policy established itself to become one of the fundamental areas of integration in the European Union (EU) (Zito, Burns, and Lenshow, 2019, p. 203), despite not being recognized in the founding Treaty of Rome (Selin & VanDeever, 2015, p. 312). This change underlines a remarkable development in environmental policy since the beginning of European integration (Delreux & Happaerts, 2016, p. 12). The Paris Summit in 1972, one of the first meetings of EU leaders to discuss environmental politics, laid down the provisions for the creation of Environmental Action Programmes (Selin & VanDeever, 2015, p. 312). European Environmental Action (EEA) programmes guide the development of environmental action for a given time period and are renewed in fixed intervals (ibid.). In 1986 the Single European Act revised the Treaty of Rome and gave a substantive push to environmental policy by incorporating it into the legal framework of the treaties (Knill & Liefferink, 2012, , p. 19). The EU furthermore asserted its role as a key leader in environmental protection in the Amsterdam and Maastricht treaties (Tosun, 2018, p. 266) and in international agreements such as the Kyoto Protocol in 1992 (Zito et al., 2019, p. 197). For the most time, the EU continuously delivered a growing body of environmental policy (Steinebach & Knill, 2017, p. 430).

The relevance of topic under study

Given that the main role of the European Commission (hereafter Commission) is to set the political agenda of the EU (Alexandrova, 2017, p. 756), it is designed to "expand the scope of Community competence to new areas and to increase its own competence and influence within the policy process" (Gravey & Jordan, 2016, p. 1184). Agenda setting is defined as the process by which attention of policy makers is allocated among a set of issues (Baumgartner & Jones, 2005, p. 46). Due to this functional role, the Commission is commonly regarded as the central driver of environmental policy in the EU (Selin & VanDeever, 2015, p. 315). Paradoxically, several scholars assert waning output in environmental policy in the late 2000s and beginning of 2010s (Steinebeach & Knill, 2017; Liefferink & Knill, 2007; Zito et al., 2019; Čavoški, 2015). Some scholars even speak of a negative development: policy dismantling which means that the EU reduces its regulatory policy (Gravey & Jordan, 2016, p. 1180). Some explanations maintain that the EU simply reached its height of policy making because the environment is a mature area of EU competence and thus there is less space for radical change (Benson & Jordan, 2010, p. 474). This is puzzling, since the nature of contemporary environmental problems

becomes more challenging and demands more attention by the EU (Zito et al., 2019, p. 188). The trend of policy dismantling stands in contrast to the Commission's role as a champion of environmental policy and the reality of environmental issues. These conditions make it unlikely that the Commission is keen to cut back on policy making in this domain (Steinebach & Knill, 2017, p. 432). This mismatch between theoretical expectations and empirical findings demands more scholarly attention on the evolution of environmental policy making in the recent years in the EU. As a result this thesis tackles the following question:

"How has the European Commission's environment agenda evolved over the years?"

The research question can be addressed in two ways. This ensues from the nature of environmental policy, which can be seen in general terms but can also be dissected into its subcategories that focus on specific aspects of the environment for instance climate change or protection of biodiversity. On the one hand, the thesis explores the evolution of general environmental policy on the Commission's agenda, to illustrate how much attention the Commission paid to environmental issues over years. To assess how attention changes in policy making, research on "change distributions" emerged (Princen, 2013, p. 864). Although "focus on change distributions has yielded many important insights about policy-making processes, it has come at the cost of obscuring the underlying substantive policy issues (Princen, 2013, p. 859). To overcome this issue, the second objective of this research is to assesses how the focus on environmental subtopics evolved. Given that the environmental challenges faced today are significantly different than those faced at the establishment of environmental policy, the focus of environmental policy has shifted over the years (Withana, Baldock, Coolsaet, and Volkery, 2012, p. 10). Moreover, member states' priorities across environmental issues seem to have become more diversified (Tosun, 2018, p. 268). This poses an additional challenge to environmental policy making and raises questions about the direction in which it has shifted, as this is also not clearly answered in the existing literature.

Accordingly, the second component of this thesis analyses the intra-agenda dynamics of environmental subissues. This reveals which environmental issues the Commission prioritizes in environmental policy making and in how far issues compete for attention on the agenda.

On top of the puzzle outlined at the beginning, the existing studies dealing with this topic are limited by several factors. Firstly, the literature does not cover the complete environmental

domain but are often limited to specific sub issues like clean air and water protection (Steinebach & Knill, 2017, 433). Thus, it is not certain that the research findings of these sub domains apply to the general environmental policy domain. This research makes a contribution by studying the development environmental policy domain overall, comprising a number of environmental issues. On top of that, it studies the intra agenda dynamics of a variety of specific sub issues as well.

Secondly, the studies conclude the analyses in 2014, which marks the onset of the latest EEA programme (Tosun, 2018, p. 265) and therefore cannot make assumptions about how this trend developed in the most recent years. Zito et al. (2019) underline that it has to be tested empirically whether the time from 2008-2020 represents a period of disequilibria that could "fundamentally change the EU's nature and impact environmental policy" (pp. 198- 199). For this reason, the thesis focuses on environmental policy development from 2008-2020. Further justifications for the chosen time frame will be provided in the methodology section.

Lastly, the existing scholarship has only devoted scant attention to the agenda setting in environmental policy (Tosun, 2018, p. 270). The policy making process comprises several stages from agenda setting, over decision making, to implementation (Buonanno, 2018, p. 275). Since agenda setting has significant influence over the rest of the policy making process it is imperative to give particular spotlight on this stage (Princen, 2007, p. 22). It is suggested that environmental policy stagnation could be a result of the reluctance to initiate policy proposals in the first place (Steinebach & Knill, 2017, p. 443). Hence, limiting the theoretical scope to one stage of the policy process is very important in order to pinpoint the origin of policy changes, which is done in this thesis.

The scholarly debate on environmental policy evolution will be outlined further in the literature review. By addressing the aforementioned issues in the literature, the thesis makes significant theoretical contributions to this field of study. The Commission is the appropriate institution to study this issue, because it is the only European institution that can initiate policy proposals and consequently has power over shaping the environmental policy agenda in individual cases and in the long term according to its own preferences (Knill & Liefferink, 2007, p. 79).

The theoretical framework employed in this thesis is Punctuated Equilibrium Theory (PET). PET stipulates that attention patterns on the agenda are characterized by long periods of stasis or incrementalism, that are interrupted by occasional peaks in attention (Baumgartner & Jones, 2005, p. 6). This thesis is an endeavour to further expand on comparative research with PET. Analyses of change distributions are still relatively sparse in the EU (Princen, 2013,

p. 863). Although Alexandrova et al. (2014) have created a large scale dataset on attention patterns in the European Council agenda, a comparable dataset for the Commission is only in progress. This thesis is a step forward in the analysis of change distributions on the European Commission in one domain. Additionally, the existing studies on the evolution of EU environmental policy fall short on applying a PET approach.

Practical significance

Beyond the theoretical significance elaborated above, the research topic of this thesis is also practically relevant. By unraveling the environmental policy evolution in the recent years we can formulate expectations about the direction of the EU's environmental policy in the coming years. Considering that the analysis stretches the post-crisis time in the EU, it can give an intimation about how the Commission is likely to react to crises, in particular in environmental policy. This thesis aids our understanding of the legislative behaviour of the Commission in an increasingly important European policy domain. This research gives insights whether the Commission fulfils its role as an institution that fosters stronger integration by initiating policy and shaping the direction of policy. The domain studied, environment, also has heightened relevance in light of the increased attention given to it by the European public lately (Eurobarometer, 2017, p. 5)

Structure of the thesis

The thesis is divided into 6 sections: the introduction, the theory, the literature review, the methodology, the analysis and the conclusion. The first section offered an introduction to the general topic and specified the relevance and objective of this study. The next section explains the theoretical foundations of PET and clarifies the concepts that are relevant for this study. I will also justify the association between the theory and the research and develop some theoretical expectations. Subsequently, I will give an account of the relevant scholarly literature on this topic to provide an overview of the state of the art in this area of research. After that I will present the Methodology and data employed in this research. Then, I will proceed to the main part of this research: the analysis of Commission Work Programmes and the presentation of the results. This is divided into two sections. The first analysis section discusses the results for the overall attention patterns on environmental issues on the Commission's agenda. The second section discusses how attention is distributed across environmental subissues. Lastly, I

will make some concluding remarks including critical reflections on the research and theory as well as implications and avenues for future research.

Punctuated Equilibrium Theory

PET originated as a theory of agenda setting in the US American context but is applicable to other national contexts as well as the European institutions (Princen & Green Pederson, 2016, p. 69). The theory aims to explain attention patterns and policy change over long periods of time (Baumgartner & Jones, 2012, p. 4). PET stipulates that policy change is not gradual and smooth as assumed by *incrementalism* but rather a combination of *equilibrium* and *punctuations* (Baumgartner & Jones, 2005, p. 6). *Punctuations* are points in time where a high amount of attention is directed to an issue (Princen, 2013, p. 854). Equilibrium can either have phases of *Incrementalism*, which is policy change through small scale adjustments, or near *stasis* (Beyer, Breunig, and Radojevic, 2017, p. 43).

The theory is built on the microfoundation of *bounded rationality* of decision makers (Baumgartner & Jones, 2012, p. 3). *Bounded rationality* assumes that humans have cognitive limitations which, projected onto policymakers and institutions for instance the European Commission, means that they cannot pay attention to all issues at the same time (Baumgartner & Jones, 2012, pp. 3-4). This means that giving attention to one issue is necessarily at the expense of consideration for another issue. *Bounded rationality* translates into disproportionate information processing by governments which leads to underreactions, respectively periods of equilibrium or at times overreaction, respectively punctuations (Baumgartner & Jones, 2005, p. 22). This tendency conditions the formation of agendas and the allocation of attention to issues.

Two main concepts on how organizations process information ensue from this logic: *serial* and *parallel processing* (True, Jones, and Baumgartner, 2007, p. 158). *Serial processing* organizations, usually macro political institutions, handle issues one after another (ibid). This entails that they can only have limited capacity to pay attention to issues and issues compete for attention on the agenda (Alexandrova et al., 2012, p. 70). Conversely, *parallel processing* institutions are able to attend to many issues simultaneously because they distribute issues among *policy subsystems*, which are groups of experts that support the policy making process (True et al., 2006, p. 158).

Parallel processing in subsystem politics is governed by dynamics of incremental change which allows small scale changes but works against large scale variations like

punctuations (True et al., 2006, pp. 158-159). *Serial processing* in contrast features both incremental episodes as well as radical changes, i.e. punctuations because policymakers are compelled to juggle issues and prioritize some issues on the agenda and as a consequence neglect others (Baumgartner & Jones, 2005, p. 26).

Large scale change is caused by *focusing events, issue framing* and *venue shifts* (Princen, 2013, p. 856). Using these concepts would imply research that attempts to causally explain attention patterns, however this study focuses on describing the attention dynamics. Therefore these three concepts will be sidelined. Instead the concepts instructive to my research are *bounded rationality, parallel and serial processing, punctuations, equilibrium, incrementalism and stasis,* as well as *underreaction and overreaction* describe the agenda dynamics of the Commission.

Theoretical expectations

The role of the Commission is defined as "The institution formally responsible for legislative and more broadly policy initiative" (Alexandrova, 2017, p.756) The processing style of the Commission is rather ambiguous. The College can be considered the leadership of the organization that can offload work to the specialized subunits, respectively the DGs (Alexandrova & Carammia, 2017, p. 760). To relieve its workload, the Commission disposes of a technical arm composed of DGs and Services that are made up of experts, bureaucrats, specialists and administrators of a specific policy area (Elias, 2019, p. 27). This type of information processing is characteristic for parallel processing institutions (True et al., 2007, p. 158). Nevertheless the College of Commissioner's, the political head of the institution, resembles a serial processing style of agenda setting and has a macro political agenda (Alexandrova & Carammia, 2017, p. 760 & p. 756). The College is made up of one Commissioner per country, a president, vice president and the HR/VP (Elias, 2019, p. 25). Baumgartner & Jones (2005) argue that "While an organization can create specialized sub-units to deal in parallel with separate problems, the leadership of the organization still has a limited attention span." (p. 46). According to this, the Commission or more specifically the College of Commissioner's can be considered a serially processing institution. This entails that it produces punctuated-equilibrium dynamics, also in environmental agenda setting. Building on the theoretical explanations above I can formulate the following hypothesis for the evolution of the Commission's environmental agenda:

H: The evolution of the European Commission's environmental policy agenda is characterized by long periods of incrementalism with occasional large scale changes"

Why PET is a valuable theory for this research

PET occupies a central place in the agenda setting literature and since its emergence has led to the accumulation of a vast body of scholarship (Princen & Green Pederson, 2016, p. 69). The theory makes sense of changes over longer periods instead of snapshots in time, which provides an adequate theoretical lense to explore the evolution of the agenda (Baumgartner & Jones, 2005, p. 28). PET is also very suited to the European context because it is designed for contexts of high institutional complexity and the existence of many policy making venues which is characteristic of the institutional structure of the EU (Princen, 2013, p. 865). The merit of PET is that it combines assumptions about the microfoundations, respectively bounded rationality, with assumptions about the macro level processes, respectively incrementalism and large-scale change (Beyer et al., p. 2017, p. 43). Additionally, PET enables the comparison of agenda dynamics to other polities, which contributes greatly to comparative studies of agenda setting (Princen, 2013, p. 866).

Literature Review

What we know about the evolution of environmental policy in the EU

In the book "Agenda setting in the EU" Princen (2009) assesses EU environmental policymaking from 1967-2005 (p. 62). The analysis demonstrates that in terms of attention the Commission has a quite concentrated environmental agenda, (Princen, 2009, p. 65) which suggests that a narrow set of environmental subtopics prevails over others in the agenda. Princen (2009) identifies that environmental issues like air and water pollution or species and forest protection dominate over topics like research and development, that are at the bottom of the EU's agenda (pp. 62-64). Since his analysis regarding the development of the content on the environmental agenda concluded in 2005, research on the following years is much needed.

Zito et al. (2019) analyse the trajectory of EU environmental policy in respect to processes of change (p. 192). Their study draws on a growing scholarship that suggests the EU moderated environmental ambitions in the recent years (Zito et al., 2019, p. 199). According to them, environmental policy experienced large scale change in the years of its emergence in the 1970s

(p. 196). Afterwards, the body of EU environmental policy grew in an incremental fashion for the longest time (p. 201). From 1999 to 2008 only minor changes were made to environmental policy (p. 198). Nevertheless, their article places focus on the implementation stage of policy instead of agenda setting (Zito et al., 2019, p. 201). Therefore, "the question of how the EU shapes future environmental policy remains understudied." (ibid.). The research indicates, however, that there was a less positive trend on the agenda than observed in implementation (ibid). Zito et als (2019) study is an exception in the regard of applying PET since it integrates features of PET into the wider theoretical framework utilized in their study, however their analysis is not systematic (p. 194).

Steinebach and Knill (2017) observe an upward trend in environmental policy output from the mid 1990s to the late 2000s (p. 438). Clean air policy was rather incremental while water protection underwent strong policy change (Steinebach & Knill, 2017, p. 436). This finding highlights the importance of analysing subtopics individually, since their trajectory can be divergent. Because the analysis is limited to the issues of clean air and water protection (Steinebach & Knill, 2017, p. 430) it only shows a partial picture. For this reason, I make a comprehensive analysis that includes a wider range of environmental issues. In contrast to Zito et al. (2019) who argue that environmental policy was incremental despite the economic crisis (p. 201), Steinebach & Knill argue that EU environmental policy stagnated as an aftermath of the economic crisis (p. 443).

Burns, Eckerley, and Tobin (2020) involved themselves in this debate by assessing the effect of the economic crisis on the EU's environmental policy output (p. 2). The authors also affirm a drop in policy density and intensity in the immediate post crisis period but claim that the EU generally carried on producing policy (Burns et al., 2020, p. 13). Some interviewees suggest that "green issues were no longer a policy priority for the Commission" because other issues assumed greater attention (ibid). This claim highlights the demand for research on the specific agenda dynamics of the Commission. The authors stress that their analysis is limited to the immediate period after the crisis but that the following years may show a different pattern (Burns et al., 2020, p.14).

The thesis fits into the literature on the evolution of EU environmental policy by extending it to the most recent years and contributing an in-depth analysis of the largely understudied agenda setting stage in policy making from a PET perspective.

Methodology:

Data

Having reviewed the main arguments of the literature on the evolution of environmental policy, this section explains the data and methodology used to answer the research question. There is a variety of documents produced by the Commission (Alexandrova, 2017, p. 762). In order to evaluate the Commission's agenda, the annual Work Programmes are representative of what the Commission prioritizes for the upcoming year and thus represent its agenda (ibid). The Work Programmes are part of the collection of strategic documents of the European Commission in which it develops its overall political goals. In these documents the Commission assesses the progress from the previous year, the challenges and the priorities for the next year (European Commission, 2016). "The work programme shows how the Commission plans to give practical effect to the political priorities set out by the President" (European Commission, 2016). These documents are most suitable for this research since "once an issue is placed on the agenda it is inserted into the Work Programme" (Jordan & Adelle, 2012, p. 214). Since these documents are produced by the College, they correspond to the macro political agenda (European Union, 2020). The documents are retrieved from https://ec.europa.eu/info/publications/european-commission-work-programme_en and listed in Annex A.

Method

The research design is a longitudinal case study, which is one of the two prominent strands of PET research (Beyer et al., 2017, p. 48). This thesis combines the case study approach with the collection of quantitative data, by means of quantitative content analysis (QCA) on a single policy domain over time. In PET literature, "case study" usually refers to the study of one policy domain (Princen, 2013, p. 856), in this case the environment. Longitudinal designs assess trends and changes over a longer period of time and are therefore suitable to explore changes in attention (Halperin & Heath, 2017, p. 151). Based on the assumptions of PET, it is necessary to involve a longer time frame to capture the full dynamics of attention (Howlett & Cashore, 2009, p. 35). Scholarship on policy development agrees that any analysis of this kind must cover periods of several years (ibid). To study the evolution of the environmental agenda I selected the time from 2008-2020 for several reasons. Various

authors claim the time around 2008 to mark a new era in environmental policy making. Delreux & Happaerts (2016) argue that this era is defined by the entry into force of the Lisbon treaty in 2009, the outbreak of the economic crisis and a decrease in weight of environmental policy internationally (p. 14). The Lisbon Treaty in 2009 had important consequences on environmental policy making because it granted Council and Parliament greater powers in this respect (Tosun, 2018, pp. 266-267). This period is influenced by crises, such as the economic and migration crises and Brexit, which created a very uncertain environment and had a significant effect on environmental policy-making (Zito et al., 2019, p. 199). Additionally, the EU was joined by several new members due to the enlargements of 2004 and 2007 which made environmental policy making more complicated than before (Liefferink & Knill, 2007, p. 220). For these reasons 2008-2020 is a very revelatory time to study environmental policy in the EU.

In order to answer the research question, I conduct a QCA on Commission work programmes from 2008-2020. Content analysis is suitable to assess the importance of the attention given to an issue on the agenda (Princen, 2009, p. 49) and gives insights into subjectivity, meaning what people were thinking or in this case prioritizing (Halperin & Heath, 2017, p. 160). QCA prescribes that I will examine the data for the frequency of manifest references to environmental issues (Halperin & Heath, 2017, p. 346). This means I will count the number of codes that I assigned in each document per year. Moreover, QCA generates tables and figures to present the output of the analysis, which I will present in the analysis (Halperin & Heath, 2017, p. 354).

CAPIC	Description
7	Main CAPIC Environment
700	General
701	Drinking Water Safety, Water Pollution and Conservation, and Water Supply
703	Waste Disposal
707	Recycling
708	Indoor Environmental Hazards
709	Forest, Species & Biodiversity Protection

711	Land and Water Conservation
712	Environmental Technological Risk
722	Transport of Hazardous Waste
723	Radioactive Waste and Regulation of Dangerous Chemicals
724	Pesticides
730	Air and Noise Pollution
731	Global Warming
798	Research & Development
799	Other

Table 1: Codebook for the Quantitative Content Analysis of Commission Work Programmes

I will use the coding scheme developed by Alexandrova et al. (2014) for the EU Policy Agendas Project (p. 155). In order to determine the standing of environmental issues on the agenda, attention is an adequate indicator (ibid). Attention is operationalized in the frequency of the occurrence of words related to a topic (ibid). Each unit of analysis that refers to an environmental issue will receive one Comparative Agendas Issue Code (CAPIC). The respective words and codes are specified in the codebook (Table 1) which will be utilized for the QCA. Environment as a main topic (CAPIC 7) is divided into 15 subtopics that have individual codes. The main topic and subtopics and the respective code are derived from the EU Policy Agendas codebook, retrieved from http://www.policyagendas.eu/. The codebook presented in Table 1 is a version of the original "mastercodebook" used by the CAP but adapted to the European context by Alexandrova et al. (2014, p. 155). The CAP is a collection of information that supports the study of policy processes and trends across time. The CAP was designed as a tool for research that intends to measure levels of attention over time (Bevan, 2019, p. 20).

In annual government programmes, such as the Work Programmes, sentences are the preferred unit of analysis (Alexandrova et al., 2014, p. 155). Although Alexandrova et al. (2014) code quasi-sentences, Däubler, Benoit, Mikhaylov, and Laver (2012) have shown that coding natural sentences instead of quasi sentences produces just as valid results and improves

reliability (p. 950). Each topic is assigned a code so that if a sentence that refers to the topic occurs in the text, the sentence will be assigned the code of that topic. The choice of coding unit also entails that if one sentence addresses multiple different environmental sub issues at a time, the sentence can only receive one code. The codebook prescribes that in this situation, the sentence should be coded as "general". In the end, the number of codes for each document will be counted (Alexandrova et al., 2014, p. 155). For the first part of the analysis, to assess the overall evolution of the agenda, I will count the frequency of the main topic (CAPIC 7). The second part of the analysis explores issue competition dynamics between sub issues. To this end I will count the amounts of subtopic codes year by year on top of the main topic count. This will also be recorded in the dataset, so that I can count in the end how often these sub issues were mentioned over the years and how many different sub issues were on the Commission's agenda in a year.

After analysing the Commission Work Programmes and assigning codes, I will record the number of codes per year in a dataset in a computer programme called SPSS. This dataset records the total count of the main CAPIC per year and the count of each subtopic. I create a frequency distribution of the number of codes per year with SPSS. This visually displays the allocation of attention to the main CAPIC over time and eases the interpretation of the attention patterns. Moreover, I can see which sub topics were addressed each year.

There are several advantages to this approach: Firstly, it allows for the reconstruction of agendas far back in time because government documents are available for a longer time than interviews and surveys (Alexandrova et al., 2014, p. 155). Secondly, by using a standardized coding scheme we can compare agendas within and between political systems (Alexandrova et al., 2014, p. 156). Lastly, interviews and surveys in comparison only have limited ability to reconstruct attention to all issues on the agenda, since respondents are usually specialized in one issue (ibid).

Analysis

How the Commission allocates attention to environmental issues over the years

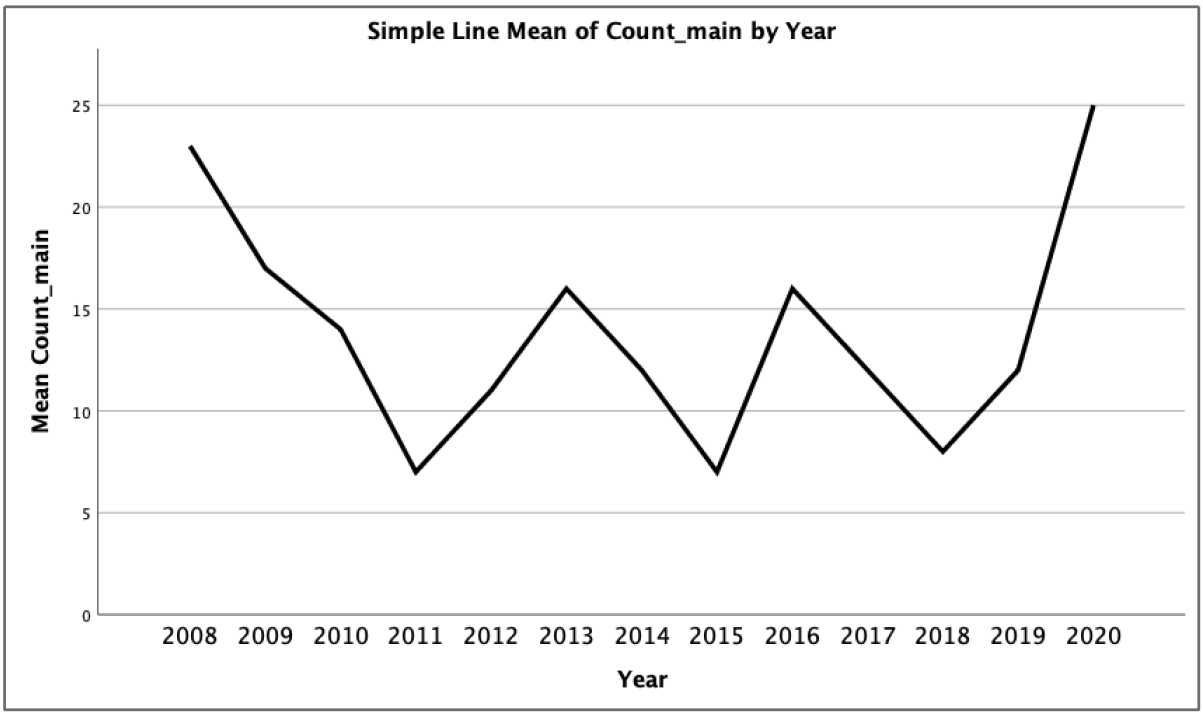

Figure 1: Attention pattern of environment (main CAPIC 7) in the European Commission Work Programmes

Employing the methodology elaborated above this part will discuss the results of the analysis of the evolution of environmental issues on the European Commission's Work Programmes. The evolution of attention on the Commission's agenda is depicted in Figure 1. Figure 1 shows the output of the QCA of the European Commission Work Programmes and displays attention in terms of the absolute frequency of mentionings of environmental issues (CAPIC 7) per year.

Two distinct evolutionary patterns can be observed on the Commission's environmental agenda. The first pattern shows that there are two major punctuations in attention in 2008 and 2020. We can infer that at both high points the environment assumed a high position on the Commission's agenda. At a distance of slightly over a decade environmental issues were very salient. This affirms the theoretical assumptions of PET which state that occasionally issues will be subjected to a stark increase in attention, called punctuations (True et al., 2007, p. 155). Furthermore, this observation clarifies Zito's et al. (2019) conjecture that 2008 - 2020 reflects

a time of disequilibrium for environmental policy (p. 198- 199). The most radical change took place from 2019-2020 with a 19 point increase in 2 years. Attention increased steadily and substantially since 2018 up to 2020. This contradicts Steinebach's & Knill's (2017) expectation that environmental policy will not reignite after 2014 (p. 443). Since the time frame cuts off halfway through the punctuations it is also possible that they were more intense or will intensify in amplitude.

In keeping with other studies (Gravey & Jordan, 2016 and Burns et al., 2020) the analysis exhibits an immediate strong drop in attention after the economic crisis in 2008. In this case, because the economic crises and related policy domains demanded most of the volume of attention, the Commission could not pay attention to environmental issues. This is explained with issue competition, according to which issues compete for attention on the agenda (Alexandrova et al., 2012, p. 70). This results from the limited capacity of macro political institutions (ibid.), which in this regard, is the Commission. As Ferández-i-Marín, Hurka, Knill & Steinebach (2019) corroborate, policy makers put preferences on issues directly related to the crisis, for instance macro-economics, and crisis remote topics had to shift down on the agenda (p. 22). However, after this drop the data shows that the Commission picked environmental issues up again after a short time and established an attention pattern with moderate shifts from 2011 onward. This observation conforms with Burns et al. (2020) who finds that the EU managed to keep environmental policy in motion and showed resilience to the crisis effect (p. 3). At the same time, it challenges the claim of other scholars that environmental policy stagnated after the economic crisis, so there was no activity at all (Steinebach & Knill, 2017, p. 438). The reason for this discrepancy is unclear. However, as emphasized in the literature review, existing scholarship analysed the stage of policy output and lacked an analysis of agenda setting. Translating environmental policy goals as formulated on the agenda into output is still a major challenge for EU policy making and can explain such mismatch (Delreux & Happaerts, 2016, p. 5).

The second pattern that can be observed is the development of attention from 2009-2018. Commission agenda setting is very volatile during this time. There are continuous ups and downs in attention given to environmental issues which reflect regular patterns of change in attention. The evolution of attention to environmental issues displays three waves. Roughly every three years the Commission turns its focus back and increases attention to environmental issues. This is because boundedly rational institutions like the Commission do not have the capacity to devote attention to many issues at the same time and handle only a few issues at a time (True et al., 2007, p. 159). As a result it cannot maintain a constant high level of attention

to one topic and has to move from one issue to another (ibid). Once the Commission has dealt with environmental issues, it sets this topic aside for a short time to deal with other issues before it turns back to it. Such a dynamic is called serial processing in PET.

In between the extreme punctuations in 2008 and 2020 there are 2 moderate increases in attention in 2013 and 2016. It is ambiguous as to whether these points can be interpreted as punctuations or are part of an equilibrium pattern. The high points in 2013 and 2016 constitute an increase in 9 absolute points from the preceding low points. Because incrementalism is defined as small scale adjustments, the changes between 2008 and 2020 are too pronounced to be considered as such. An incremental pattern would display flatter curves. On the other hand, they are also not clear punctuations, since these changes are less extreme than the punctuations in 2008 and 2020. The level of attention in 2013 and 2016 is strikingly similar in size as in both years environmental issues occur 16 times on the agenda of the Commission. Albeit not a clear-cut incremental pattern this observation gives reason to argue that the fluctuations in between the two extremes are part of a pattern of equilibrium.

In general, environmental issues were never completely absent from the agenda but were either higher or lower at times. This underlines that the institution always showed some level of interest in environmental matters. There are two radical increases in attention at the beginning and the end of the time frame and more moderate changes in between. Putting both main patterns together we can draw conclusions on the overall attention pattern. I hypothesized that: "*The evolution of the European Commission's environmental policy agenda is characterized by long periods of incrementalism with occasional large scale changes".* Strikingly, there is no clear punctuated-equilibrium pattern on the agenda. Although we can observe two distinct processes, one of radical change and one of moderate change, the latter does not fit univocally the theoretical expectations. PET states that part of the punctuated-equilibrium dynamic is that policy making as a rule is characterized by longer periods of stasis or incrementalism (True et al. 2007, p. 155). At no point in time was the evolution of the agenda in complete stasis, that is to say no changes occurred at all. Instead, the attention level of the agenda constantly fluctuates. Furthermore, the pattern observed features also more pronounced changes than expected for incrementalism. As a consequence, the pattern of punctuated-equilibrium is more moderate, which corresponds to other scholarly findings that policy making in the EU is less punctuated than in the US (Princen, 2013, p. 863). All in all, the analysis only gives evidence for a tentative confirmation of the hypothesis.

The intra-agenda dynamics of environmental sub issues

Year	Topics on the agenda
2008	**Environment; Climate Change; Waste Disposal; Forest, Species and Biodiversity protection; Land and Water Conversation, Radioactive Waste and Regulation of Dangerous Chemicals; Pesticides**
2009	**Environment; Climate Change; Forest, Species and Biodiversity protection; Land and Water Conversation**
2010	**Environment; Climate Change; Forest, Species and Biodiversity protection; R&D; Other**
2011	**Environment; Climate Change; Land and Water Conversation**
2012	**Environment; Climate Change; Drinking Water Safety, Water Pollution and Conservation; Environmental Technological Risk**
2013	**Environment; Climate Change; Recycling; Environmental Technological Risk; Air and Noise Pollution**
2014	**Environment; Climate Change; Land and Water Conversation; Environmental Technological Risk**
2015	**Environment; Climate Change; R&D**
2016	**Environment, Climate Change; Recycling**
2017	**Environment; Climate Change; Drinking Water Safety, Water Pollution and Conservation; Recycling; R&D**

2018	**Environment; Climate Change; Radioactive Waste and Regulation of Dangerous Chemicals**
2019	**Environment; Climate Change; Land and Water Conversation**
2020	**Environment; Climate Change; Forest, Species and Biodiversity protection; R&D**

Table 2: The allocation of attention across environmental subtopics over the years

The distribution of attention across topics can be examined in table 2. It shows which sub topics were addressed by the Commission in each year. In terms of issue diversity over time, the Commission dealt with 3 to 5 different topics annually. An exception is 2008 where the agenda's scope was biggest with 7 different subtopics on the agenda in this year. Such findings indicate that the Commission has limited capacity to deal with more than 5 distinct environmental issues per year. This indicates that likewise to main topics, also subtopics compete for attention on the agenda. Because agenda space is limited to a certain variety of environmental issues, subtopics are competing to be among the selection of issues that receive consideration by the Commission. In general, the environmental agenda did not witness a broadening of issues. Quite the opposite, the agenda constricted in recent years. As in 2008 diversity was high but decreased in the following years to three to five types of issues. Similarly, Princen (2007) argues that agendas in the EU are quite narrow in respect of the breadth of topics (p. 66). Overall, issues of "Climate Change" and "Environment" dominated the environmental agenda over the years.

What topics were attended to specifically, varied per year. Environmental issues and climate change are an exception to this rule as they uninterruptedly occupied the agenda from 2008-2020. The Commission has ignored issues of "Transport of hazardous waste" and "Indoor environmental hazards" throughout. Comparing the first and last year of the analysis, the agenda did not evolve to a substantially different topic focus. In 2008 and 2020 "Environment", "Climate Change" and "Forest, Species and Biodiversity Protection" were on the agenda. As can be seen in Table 2., in the first three years of analysis "Forest, Species and Biodiversity Protection" were still attended to by the Commission, however in a big gap of 9 years, this issue is not addressed once. Issues of "Environmental technological risk" were introduced to the agenda in 2012 but after being on the agenda for three years were dropped again by the

Commission in 2015. The interest in "Recycling" issues resonates with the general peaks of attention as they emerge on the agenda around 2013 and 2016. "Land and Water Conservation" and "Research & Development" were discussed sporadically on the agenda. These topics are often raised marginally for a year but then quickly dismissed again for a few years.

In 2020 "Climate Change" arose on the agenda, yet, with a lower count than in 2008. This is striking, considering that climate change issues rose on the public agenda (Eurobarometer, 2017, p. 5). This finding supports PET's assumption that policy makers process incoming information disproportionate. Guy-Peters', Jordan & Tosun (2017) research corroborates that climate change issues are prone to underreaction to incoming information by policy makers (p. 621).

Conclusion:

This thesis dealt with the question "How did the environmental agenda of the European Commission evolve over the years?". In order to answer this question I have theoretically from PET and analysed Commission Work Programmes over a time frame of slightly over a decade.

The main findings of the research give support for a tentative confirmation of the hypothesis. Overall attention evolved from being high at the beginning of the time frame, subsequently experiencing rather stable development during the 2010s, to a substantial peak in 2020. Two punctuations occurred in 2008 and 2020 while the intermediate period was characterized by regular fluctuations. Although the latter development is not definitive incrementalism or equilibrium, it exhibits a stable pattern of change. Environmental issues were never off the agenda, but were always considered to some extent. Hence, the challenge is not to get environmental issues on the agenda but to shift them higher up on the agenda. Moreover, the agenda was never in a state of complete stasis which means that there always occurred changes to some extent on the agenda. This result is crucial because it shows that the Commission agenda never fully dismissed the importance of the environment but was active to some extent.

This thesis also provided an empirical test for the predictions of Punctuated Equilibrium theories in the environmental domain in the Commission. Although I cannot provide a definite answer for the slightly puzzling empirical results, they still resonate well with the general propositions of PET. Therefore, the findings add to the generalizability of the theory by proving that PET does not only apply to the national institutions for which it was initially created, but also to the context of an agenda setting institution of an international organisation: the European

Commission. Generally, the attention patterns found in the empirical analysis correspond to the serial processing style of institutions that are assumed by the theory. This lends more support to the assumptions of disproportionate information processing and bounded rationality of institutions. Hence, the thesis furthermore aids our understanding of the legislative behaviour of the Commission.

The substantial upturn of attention in the Commission's work programme of 2020 is a promising sign for the invigoration of EU environmental policy on the agenda. As the EU slowly recovers from the economic crisis, the crisis' effect starts to lift which would mean that more attention can be paid to environmental issues again. The overwhelming focus on climate issues on the agenda also suggests that the EU will produce more policy on particularly this issue in the future.

The Commission's focus on sub issues of the environmental domain did not change much. The set of environmental sub topics that were considered did not vary notably: climate change and environment constituted the majority of the volume of attention over the years. Additionally, the Commission attended to a general range between three to five topics every year. This means that the scope or breadth of environmental issues discussed was relatively stable.

Generally the findings of this thesis are in line with several findings of previous scholarship, however, deviating on an important point. Although several scholars emphasize that EU policy making apparently entered an era of stagnation until 2014, this thesis indicates that agenda setting was not in stasis during this time. This finding also highlights the fruitfulness of separating the policy making process into its individual stages and studying each in isolation because they can reveal different evolutionary patterns. The agenda of the Commission demonstrated frequent changes in the level of attention paid to environmental issues up until 2014 and beyond. This conclusion can also imply that the EU's environmental agenda in the coming years will be quite volatile. In response to crises we can expect the Commission to initially divert attention away from environmental issues, but sustain attention in the long run and not completely dismiss environmental policy making. It remains to be seen what effect the pandemic crisis has on the EU's environmental policy.

Shortcomings and strengths of this research

The results revealed a shortcoming in the choice of time frame. The punctuated-equilibrium pattern observed was not very clear. As Fernàndez-i-Marín et al. (2019) argue,

economic crises lead to more incremental policy making patterns in crisis remote policy areas (p. 20). Because the environment is a crisis remote topic (Burns et al., 2020, p. 10), the choice of time frame could be the reason that we didn't observe stasis during 2009-2018. Because of these exceptional circumstances, the time frame might not be representative of the general evolutionary pattern. Moreover, the punctuations were cut off directly at the beginning and end of the analysis, which constrained a full analysis of the punctuations.

The thesis also exposed some shortcomings of the theory. The results of the analysis showed quite ambiguous patterns of policy change that were not clear-cut punctuated-equilibrium. The delimitation between patterns of incrementalism, stasis and equilibrium is unclear in the theory. Indeed, Baumgartner & Jones (2005) affirm that there have been major debates around "how large" a change needs to be to qualify as incremental (p. 114). This ties in with Princen's (2013) critique that in a lot of change in regulatory policies, such as EU environmental policy, is more ambiguous and is more difficult to be assigned to either small or large-scale change (p. 866). This blurriness can lead to issues in the interpretation of attention patterns as was encountered in the analysis of this thesis. To overcome this problem of interpretation it is suggested to conduct a leptokurtosis test that can confirm punctuated-equilibrium (Princen & Green Pederson, 2016, p. 76). However, the scope of this thesis was limited to QCA and was not able to test the thesis statistically.

A strength of this research lies in its methodology. The QCA approach has been previously used by a number of PET scholars to determine attention patterns on the agenda and produced valid findings in different settings (Princen, 2013, p. 859). The codebook and coding technique are drawn from the CAP and EU policy agendas project, which inform studies of PET in a variety of countries and promote comparative research. Abiding by this methodology, attention for issues and changes in such can be assessed systematically (Princen, 2013, p. 859). Instead of introducing a different technique, this research adds to cumulative comparative research in this domain which encourages more research that builds on top and informs each other. Additionally, the selected data, Commission Work Programmes, serve as a very apt representation of the Commission's agenda. Conducting an analysis on these documents ensures uniformity of the results and an easy comparison between years.

This thesis profited from taking a deeper look into the evolution of subtopics. Although exploring the overall evolution of general environmental topics, the focus on subtopics gives a more nuanced insight into the agenda dynamics of environmental issues on the European Commission agenda. In this way we can comprehend better how the Commission allocates attention across sub issues. Besides, the results revealed that the Commission's agenda is quite

constricted and subissues compete for attention. Because of that I was also able to find out that the environmental agenda of the European Commission primarily revolves around climate change issues.

Avenues for further research

Apart from answering some questions, this thesis also raised new ones. Although previous scholarship asserted that environmental policy was stagnating after the economic crisis, the analysis of this research showed that the agenda was quite dynamic throughout the years. This can bring us to the assumption that attention dynamics of the agenda setting stage and the general policy making process are not overlapping. This proposes further research to expand on this observation.

All in all this research was preliminary and should be extended and attract further interest by agenda setting scholarship. More research is crucial to acquire more knowledge in this area of study. As a result of the shortcoming in the selected time frame, an extension of such is much needed in further research. The "bigger picture" could lend more insight into overall processes and even reveal distinct attention patterns than in this study.

An extension of the time frame, would further be complemented by more research that engages into the topic with statistical analysis. A collection of large scale quantitative data on the Commission would be particularly conducive. In order to confidently infer the results obtained from the analysis of the environmental sector to other policy domains and the Commission in general, more research needs to analyse other policy domains. The availability of quantitative data would allow for leptokurtosis tests for instance, which can show whether a distribution is in fact punctuated-equilibrium or not (Princen & Green Pederson, 2016, p. 76).

Appendix A

Commission Work Programmes

European Commission (2007) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2008

European Commission (2008) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2009

European Commission (2009) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2010

European Commission (2010) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2011

European Commission (2011) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2012

European Commission (2012) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2013

European Commission (2013) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2014

European Commission (2014) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2015

European Commission (2015) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2016

European Commission (2016) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2017

European Commission (2017) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2018

European Commission (2018) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2019

European Commission (2019) Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions, Commission Work Programme 2020

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