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Changing environmental subjectivity: a case study on a deliberative mini-public

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INTRODUCTION

The subject of this research is deliberative democracy and environmental policy-making. Environmental problems, and especially climate related ones, are surrounded with inequalities: in the distribution of the causes and the effects of the problems, in the capacities to face these, in the access to (environmental) politics, etc. (Oosterlynck et al., 2019). Authors working on earth stewardship (e.g. Chapin et al., 2011) and the Multiple-Evidence-Base approach (e.g. Tengo et al., 2014) stress the importance of creating a dialogue between different forms of knowledges and perspectives in order to adequately tackle global environmental change. In an effort to make public policy more inclusive, legitimate and considerate of the citizens' realities, many deliberative processes have seen the light of day (Button & Ryfe, 2005; Chambers, 2003; Ghimire et al., 2021; Sanoff, 2006; Zurita, 2006). Additionally, bringing in different perspectives into public policy-making can lead to innovative solutions (Mulgan, 2020).

One of the ways to integrate citizens' perspectives in public policy-making, is through deliberative democracy and more specifically mini-publics (Dryzek & Tucker, 2008; Hendriks, 2005; Smith & Setälä, 2018), which are deliberative processes that bring together a group of "ordinary" or "lay" citizens to discuss issues of "common concern" (Bächtiger et al., 2018). Many have argued that mini-publics are particularly well-suited to address climate and environmental questions because of their inclusive and responsive character (Baber & Bartlett, 2018; Machin & Smith, 2014; Niemeyer, 2013; G. Smith, 2003). Consequently environmental, and especially climate related mini-publics have proliferated in Europe and beyond (Elstub, 2021), such as the UK Climate Assembly, the *Convention Citoyenne pour le Climat* and Global Citizen's Assembly in preparation of the COP26.

But what happens when "ordinary" or "lay" citizens participate in such a process? How does their perception of environmental issues change, if it changes, and do they consequently behave differently? Those are the questions at the heart of this research.

The literature on opinions, preferences and value changes during mini-publics is divided. Some say it has no profound or lasting impact, others say it can "activate" latent values (Niemeyer, 2013), change opinions and preferences (Button & Ryfe, 2005; Hendriks, 2005; Sanoff, 2006; Zurita, 2006) or even change core values (Mayer et al., 1995).

Given the intertwinedness of socio-environmental relations (Folker et al., 2016), I argue that an environmentally specific theoretical framework is required for this research, though this is rather rare in deliberative democracy theory. Consequently, I will borrow Arun Agrawal's (2005) framework of environmental subjectivity to assess whether and how participating in an environmental mini-public changed the participants perception of the environment and possibly their behavior towards it.

Consequently, my research question is the following: “How does an environmental mini-public influence the environmental subjectivity of the participants?”

In order to answer this question I have chosen a qualitative methodology including semi-directed interviews. This allowed me to get a deeper understanding of the participants’ experience and (changing) perceptions. I specifically chose an interpretative hermeneutic analysis which enabled me to interpret the meaning of the participants’ statements. I carried out a case study on the mini-public concerning the Danish marine environment that occurred in the fall of 2020. Out of the fourteen citizens that participated in this process, eight were interviewed, as well as the two organizers of the panel.

The structure of this master thesis is as follows: I will begin with a review of the existing literature, beginning with the broader conceptual context and progressively getting closer to the core of this research. In the next chapter I will outline and justify the methodology that was used. Subsequently, I will get to the heart of this research: the analysis and the results, which will be discussed as to give an answer to my research question. Lastly, I will propose some ideas for further research and end with the conclusion.

REVIEW OF THE LITERATURE

To situate this research in the scientific debate, a review of the literature will be given as follows: To set the broader context, I will begin with going over some definitions and concepts central in deliberative democracy theory. Subsequently, I will take a closer look at one of the ways to implement deliberative democracy that is at the core of this research: deliberative mini-publics. Having then covered the main principles and arguments in favor of deliberative democracy, I will briefly review the critics and challenges relevant to this research. Next, I will explore the link between environmental issues and deliberative democracy, and what mini-publics can do for environmental policy-making.

Since the research question focusses on the influence of the mini-public on the participants, I will finally explore the evidence on opinion, preference, and position changes in deliberative processes, as well as the more environmentally specific framework that is environmental subjectivity.

2.1 DELIBERATIVE DEMOCRACY

2.1.1 DEFINITIONS: DELIBERATION AND DELIBERATIVE DEMOCRACY

This research seeks to analyze how being involved in environmental decision-making affects the participants' perception of and behavior towards their environment. One way of including citizens in public decision-making is through deliberative democracy (hereafter abbreviated as DD), though it is not specific to environmental issues. In this section I will give a brief overview of what DD is, as to set the broader context of this research. My intention is not to give an extensive review of the existing definitions and the discussions surrounding them, but to provide some benchmarks for understanding where this research is situated in the scientific debate.

Deliberation

DD has been a prominent subject in political science and has thus acquired a large body of work, both by academics and practitioners. The authors of the Oxford Handbook of Deliberative Democracy work with the “minimal” definition of deliberation as “the mutual communication that involves weighing and reflecting on preferences, values, and interests regarding matters of common concern” (Bächtiger et al., 2018, p. 2). This definition provides interesting elements for this research. Firstly, in the notion of “common concern”. Environmental issues, and especially those related to climate change, fall within this category of “matters of common concern” (Shingal et al., 2014; United Nations Framework Convention on Climate Change, 1992) because of its importance to the well-being and survival of

humankind (Horn, 2004). But to take it a step further, because of the intertwined nature of socio-environmental relations: the natural and the human world are not so much separate entities, but rather intertwined and therefore inseparable (Folke et al., 2016) and a concern to all. Additionally, environmental issues are surrounded with a broad range of (often conflicting) preferences, values and interests (Smith, 2003). This diversity of perspectives is however rarely considered in political decision-making and makes the need for this “weighing” and “reflecting” (Bächtiger et al., 2018, p. 2) all the more salient.

Chambers (2003) uses a more detailed definition of deliberation: “Debate and discussion aimed at producing reasonable, well-informed opinions in which participants are willing to revise preferences in light of discussion, new information and claims made by fellow participants” (p. 392).

Regarding the objective of deliberation, Bächtiger et al.’s (2018) “weighing and reflecting on preferences, values and interests” (p. 2) does not imply a specific direction or goal of the process, as opposed to Chambers’ “production of reasonable, well-informed opinions”. As I will explore later on, the discussion surrounding reason and reasonability is a central topic in deliberative democracy theory (hereafter DDT).

As for the subject at the core of deliberation, Bächtiger et al.’s (2018) definition is broader, including preferences, values and interests, where Chambers’ is limited to opinions and preferences. However the “willingness to revise preferences” hints at the possible changes and effects the process can have on the participant, which is relevant to this research and will be further explored later on.

Deliberative democracy

Building on their definition of deliberation, Bächtiger et al. (2018) develop the following definition of DD: “Deliberative democracy is grounded in an ideal in which people come together, on the basis of equal status and mutual respect, to discuss the political issues they face and, on the basis of those discussions, decide on the policies that will then affect their lives” (p. 2).

A few elements in this definition are important and highlighted by the authors (2018). First of all DD is “grounded in an *ideal*”, which means that, when put to practice, the aim is not to fully or perfectly achieve this ideal, but rather to *aspire* to it. Important elements in this ideal are the *equal status* and *mutual respect*, which are central ideas for “good deliberation”, according to the authors.

Originally, the notion of equal status refers to “equal influence” within the deliberative process, but in the more practical tradition of DDT, this is rather understood as the equal *opportunity* to influence, which is more sensitive to power dynamics that may exist or arise throughout the process.

Mutual respect, on the other hand, is understood here as “listening actively and trying to understand the meaning of a speaker’s statements to that statement” (Bächtiger et al., 2018, p. 4). The emphasis is on *trying* to understand one another, since one can not expect to fully understand someone else’s position, but should however try to get as close as possible to this understanding.

2.1.2 DELIBERATIVE DEMOCRACY THEORY AND MAIN CONCEPTS

Giving an extensive summary of deliberative democracy theory’s history, the debates that animate it or the notions that surround it, lies beyond the scope of this research. Therefore, I will limit this next section to the concepts and debates that are directly relevant to this research.

The first two notions that I will further explore here are those that are often mentioned as the goals and justification for implementing DD today, namely those of legitimacy and inclusiveness.

Legitimacy and inclusiveness

One of the objectives and presumed consequences of DD that is put forward by many authors is that of enhanced legitimacy (Button & Ryfe, 2005; Chambers, 2003; Ghimire et al., 2021; Sanoff, 2006; Zurita, 2006). This is often the main argument for creating such processes. According to Chambers (2003) the legitimacy of DD relies on its accountability: by “publicly articulating, explaining, and most importantly justifying public policy” (p. 308) the political order strengthens its legitimacy. Button and Ryfe (2005) argue that this enhanced legitimacy is based on the idea that “they [the decisions] are the result of a process that is inclusive, voluntary, reasoned and equal” (p. 27).

Niemeyer (2013) defines inclusiveness as following: “A polity is inclusive to the extent that all those individuals are affected by a decision have the opportunity to deliberate and provide input into the decision-making process. And it is consequential to the extent that the deliberations of citizens are reflected in the decision being made” (p. 430). By including citizen’s perspectives, knowledge and values in political decision-making and therefore broadening the input beyond expert knowledge, better informed decisions are obtained (Zurita, 2006): “It allows decisions to be more complete, to comprehend a greater array of social and political possibilities, and to foresee a greater number of social and political consequences of our decisions” (Williams, 2000, p. 132).

Button and Ryfe (2005) conclude that “Deliberative democracy gives individuals a chance to live and to experience the essential meaning of democracy: free and equal citizens with an equal opportunity to participate in shared public life and to shape decisions that affect their life” (p. 30).

Consensus

Another notion central in the debates within DDT is that of consensus. This concept is especially important for this research since the case that I picked for this research is a consensus conference (hereafter CC), a specific type of mini-public that will be detailed later on. As the name reveals, consensus is at the core of this model and will therefore be more extensively explored in this section.

Sanoff (2006) defines consensus as following: “in the political world, consensus usually means that a significant majority of people supports a particular proposal. In small group situations consensus is usually thought of as unanimity in agreement” (p. 18).

In the beginning of DDT, consensus had central place and was seen as the goal of deliberation. Later on, more attention was given to pluralist contexts and ideals, and consensus was rather seen as only one of the possible outcomes (Bächtiger et al., 2018; Chambers, 2003). Niemeyer and Dryzek developed the notion of meta-consensus as an understanding on a higher level, that of values, common interests or, more generally, the nature of the issue, rather than consensus on the output of the process (Niemeyer, 2013).

Baber and Bartlett (2018) point to the “perils” of seeking consensus. A first issue is that, once a consensus has been obtained, the result might be perceived as a static fact, discouraging further or later questioning. Additionally, they highlight that, once this consensus is considered as a *given*, people tend to be forgetful of the underlying arguments. Similarly, Smith (2003) points to the risk of consensus becoming a pressure that might push people to adopt positions that do not comply with their values, in an attempt to avoid conflict: “There is a fine line between the search for consensus and the suppression of conflict” (2003, p. 92).

2.2 MINI-PUBLICS

Now, what happens when you put DD to practice? One possibility, mostly used by policy-makers, is that of deliberative mini-publics.

The first mini-publics were organized in the 1970's (Bächtiger et al., 2018) and gained ground in the following decade in the field of public policy research, resulting in “a pronounced shift away from an expert-centered policy science and toward the inclusion of citizens in policy debates” (Chambers, 2003, p. 315). As the name reveals, the main characteristic of a mini-public is that it brings together a small group of randomly sampled people, usually called “lay” or “ordinary” citizens, that constitutes a miniature version of the larger public. The objective of a mini-public is to complement existing democratic institutions with “informed public opinions on particular pressing matters of policy” (Smith & Setälä, 2018, p. 306) and to stimulate the public debate (Hendriks, 2005). As Dryzek and Tucker

(2008) argue, “mini-publics are able to bring to bear fresh perspectives, scrutinize all the dimensions of complex issues in light of these perspectives, and articulate the concerns of the citizenry as opposed to special interests” (p. 364).

Smith (2021) argues that deliberative mini-publics can offer a solution to representative democracy’s inability to make long-term decisions. He concludes that the variety of perspectives that random sampling is supposed to provide, makes it possible to integrate the interests of future generations, which isn’t the case with aggregate democracy.

During the process the discussions are facilitated, which is meant to “ensure fairness, equality and respect” (Smith, 2021, p. 98), relating back to the *equal status* and *mutual respect* mentioned in the definition of Bächtiger et al. (2018). Information on the subject is provided to the citizens, often through direct interaction with experts and stakeholders. Organizers are usually really careful to offer a wide range of insights and types of knowledge.

2.2.1 TYPES OF MINI-PUBLICS

As Table I shows, the size of mini-publics can range from ten people, such as in some CCs, to a couple of hundreds, such as in the deliberative poll. Usually, policy recommendations are the output, except for deliberative polls, which aim to assess opinion changes during the deliberative process.

Concerning the selection procedure, for most mini-publics, invitations are sent out to a large number of random citizens. This random sampling guarantees an equal opportunity to be selected and refers back to the discussion on equal opportunity that was mentioned earlier. Then, a selection is made based on socio-demographic and economic criteria such as gender, age, profession, and degree of education, as to create a “diverse” group. The intention is not to reach statistical representation, but rather to bring about different opinions and values present in the general population (Baber & Bartelett, 2018; Smith, 2003).

Figure I - Types and characteristics of mini-publics

	Number of participants	Time	Output	Example
Citizen's jury/reference panels	12-36	2-5 days	Recommendation in a citizens' report	Oregon Citizens' Initiative Review, US MASS-LBP, Canada NewDemocracy, Australia
Planning cell	25 in each cell, but run in parallel or series to include 100s	2-7 days	Citizens report collates findings from different cells	University of Wuppertal, Germany
Consensus conference	10-24	3 days (plus preparatory weekends)	Recommendation in a citizens' report	Danish Board of Technology
Citizens' assembly	99-150	Series of weekends	Recommendation	British Columbia/Ontario, Canada, Ireland
Deliberative poll	200+	Weekend	Post-deliberation survey	Center for Deliberative Democracy, US
GI000	1000	1 day	Series of votes on proposals	Belgium

Note. From "Mini-Publics and Deliberative Democracy," by Smith, G., & Setälä, M., 2018, In A. Bächtiger, J. S. Dryzek, J. Mansbridge, & M. Warren (Eds.), *The Oxford Handbook of Deliberative*, p. 300. <https://doi.org/10.1093/oxfordhb/9780198747369.013.27>

2.2.2 IMPACT ON POLICY-MAKING

Recommendations to policymakers are usually the output of mini-publics. However, the impact of these recommendations on policy varies greatly. Because of this advisory role, policy makers are under no obligation to respond to or integrate these recommendations (Smith, 2003). Additionally, solutions of institutionalizing mini-publics and their outputs remain scarce (Smith & Setälä, 2018), as well as effective means to objectively assess this. This logically creates a problem, because it raises the question of what use mini-publics have if they have little to no impact.

The institutional settings, political culture and general context have a big influence on the extent of the impact (Hendriks, 2005; Rauschmayer & Wittmer, 2006). When comparing three similar CCs in France, Denmark and the USA, Dryzek & Tucker (2008) found that the perceived legitimacy of these processes and, by consequence, the level of integration of their recommendations, depends on the governmental institutions and culture: They found Denmark to be culturally and institutionally receptive of participatory processes and their results. In France, on the other hand, technocratic political beliefs translated into a skepticism towards the competences of “lay” citizens (Dryzek & Tucker, 2008). As for the case study of the USA, the CC appeared to be less successful regarding the impact on policies, as well as the diversity of the information provided and the selection procedure, which was based on advertisement rather than random sampling. This is partly explained by the fact that the CC was not state mandated and that citizen consultation is more rare in the USA.

The initiative for creating a mini-public is often determinant for its impact: Typically, mini-publics that are convened by non-state actors have relatively weak impacts (Hendriks, 2005). However, even in the case of state-mandated mini-publics, its role is advisory and does not bind the political decision makers in any way.

When looking at the receiving end of mini-publics, the political decisions-makers, Joss (1998) found that the members of the parliament’s attitude towards mini-publics evolved over time: the mini-public, in this case a CC, gained trust and legitimacy among those who were initially sceptic and even opposed to its use as a parliamentary tool, and today it is widely acknowledged as a useful support “for their own information, in party discussions, and in parliamentary debates” (Joss, 1998, p. 18).

Smith (2003) also identifies the risk of manipulating the process and the output as one of the pitfalls of mini-publics, both in the preparation of a mini-public by the organizers, as the output by politicians. Related to this, Hendriks (2005) notes that the organizers often go through a lot of trouble proving their impartiality and rigor. And as for the latter, Smith (2021) states that random selection, the facilitation, the enclosed setting and diverse information provided safeguard the deliberation from strategic action and entrenched interests.

2.2.3 THE CONSENSUS CONFERENCE

In the previous section, I outlined the main characteristics of mini-publics. Approaching the core of my research, I will now describe the specific model that I picked for my case study: the CC. As will be further described below, one of the things that characterizes the CC model is the extensive interaction between citizens, experts and stakeholders and, to a lesser extent, political decision-makers. This transdisciplinary exchange during the CC holds the potential of exploring a wide variety of interests,

types of knowledge and perspectives, possibly approaching Tengo et al.'s (2014) description of the Multiple Evidence Base Approach. Additionally, many authors have argued that CCs are particularly well-suited for complex issues, like environmental ones, because it provides the time and space to thoroughly explore the subject at stake and, because of this focus on information and knowledge exchange.

The CC is one type of mini-public developed in 1987 by the Danish Board of Technology and is therefore referred to as *the Danish model*. It is inspired by the American expert-based CC, which, as the name reveals, brings together a diverse group of experts to talk about a certain topic. The Danish model, being a mini-public, brings together not experts, but citizens (Einsiedel & Eastlick, 2000; Hendriks, 2005). CCs have been implemented in the Netherlands, the United Kingdom, Norway, France, Switzerland, Japan, South Korea, Australia, New Zealand, United States, Canada (Einsiedel & Eastlick, 2000) and Uruguay (Lázaro et al., 2021).

It is a highly structured procedure (Hendriks, 2005): Between ten and twenty-five “lay” citizens with no particular interest or expertise in the subject come together. Based on a preparatory document, they draw up a list of questions they have about the subject. After these first discussions, the organizers compose a panel of experts and stakeholders that should be able to answer all of these questions, as well as additional ones that might arise (Teknologirådet - Danish Board of Technology, 2021). The next step takes place a few weeks later. The citizens meet the experts and spend the weekend asking their questions and getting to know the issue in its different aspects. During the last weekend, they write a report with policy recommendations exposing what they, as citizens, think should be done about the issue at stake. They then present this document to the panel of experts that can give *factual*, not normative, feedback. Lastly, they present their document to politicians and an audience of citizens and interested parties.

A few elements are common in most mini-publics and have been covered in the previous section. Firstly, the participants of the CC are randomly sampled and then selected based on geographic and socio-demographic criteria. Again, the aim is not to achieve perfect or statistical representation, but to bring together the different points of view that exist in the wider population. As opposed to some other deliberative methods, for instance deliberative polls or planning cells, the CC usually does not include an honorarium to motivate participation.

Secondly, the objective is to include “ordinary” or “lay” citizens’ perspectives in policy-making. Typically, this model is seen as well-suited to handle complex issues of social relevance such as those related to technology and the environment. Joss (1998) and Einsiedel and Eastlick (2000) stress the importance of including “social, environmental and ethical implications since many sciences and

technologies have far-reaching and direct repercussions for individuals and society at large” (Joss, 1998, p. 2).

The objective as stated by the Danish Board of Technology is twofold: on the one hand the recommendations developed during the CC are meant as a support for parliamentary discussion and decisions, consequently deepening its legitimacy (Lázaro et al., 2021). The output in the form of policy recommendations is, again, common to many mini-publics. The recommendations should “provide policymakers with an improved understanding of the social context of emerging technologies, and the process should stimulate informed public debate on technology issues” (Hendriks, 2005, p. 82). The other objective stated by the Danish Board of Technology is that of informing the general public and sparking public debate on technological and scientific issues (Joss, 1998; Lázaro et al., 2021). Thirdly and lastly, a central trait of mini-publics is that of the information. Regarding the deliberative process, a diversity of information is provided to the participants as to present the issue under as many angles as possible (Hendriks, 2005). Afterwards, the organizers are in charge of informing the larger public of this process and its outcomes through media coverage, since this is one of the objectives of mini-publics (Einsiedel & Eastlick, 2000; Hendriks, 2005).

The characteristics that are specific to the CC can be put in three categories. Firstly, as mentioned before, CC are particularly well-suited for complex issues because of the relatively small number of participants and the extensive exchange with experts. The advantage of the small sample size is the amount of time every participant gets to express themselves and to thoroughly explore the topic. Getting a deep understanding of the issue is really at the core of this process and the expert panel’s diversity and size is spotlighted as one of its best features. Additionally, briefing materials, field trips, presentation, but also dialog with government officials, academics and activists are provided as to show the issues in all its complexity and under as many different angles as possible (Hendriks, 2005) and “bring up new points of view and enable the articulation of disciplinary contributions, knowledge and visions” (Lázaro et al., 2021). The ability of the citizens to grasp and cope with this complexity is one of the strengths of this model and many experts have been surprised by the “degree of sophistication” of the citizens opinions and recommendations (Lázaro et al., 2021; Rauschmayer & Wittmer, 2006; Zurita, 2006). As mentioned before, Zurita (2006) points out that environmental topics are well-suited for this kind of deliberative forum, since they are “hard to grasp for the political system” (p. 24) and hard regulations are often difficult to implement. The fact that the composition of this expert panel is partly based on the questions the participants raised during their first meeting, gives them some say in the agenda setting and is also specific to this model.

Secondly, as I have discussed in the previous section, the notion of consensus is the common thread of this process: the recommendations have to be reached *consensually*. The participants have to find

common ground, both regarding the issue and the outcomes they want to achieve (Rauschmayer & Wittmer, 2006). At the end of the process the document is signed by all participant to symbolically mark this consensus.

Lastly, the fact that the participants write the recommendations and the final document themselves is also not a given for all mini-publics. Usually, the different chapters of the document are written in smaller groups and reviewed collectively.

To conclude this section, I will briefly mention the critiques specific to this model. Because of its very structured procedure, and overall highly planned nature, organizing a CC can be a difficult endeavor. While CC have the potential to open the public debate on the issue at stake through media coverage or audiences, some argue that the stiffness of the procedure makes it seem out of reach for the wider public (Hendriks, 2005). Secondly, critics have raised the question of representation given the (exceptionally, even for a mini-public) small sample size. Lastly, related to how the participants experienced this process, some brought up that they found the process intense and time consuming (Einsiedel & Eastlick, 2000).

2.2.4 RELEVANT CRITIQUES

Now that I have covered the basic principles and ideas of DD and specifically mini-publics and the CC, I will now mention some of the general critiques that need to be taken under consideration when talking about those topics.

Representation, inclusiveness and legitimacy

As mentioned above, legitimacy and inclusiveness are two of the main arguments in favor of implementing DD and especially mini-publics. By directly integrating “lay” citizen’s perspectives into political decision-making, those decisions should consequently be more just and closer to the citizen’s realities. But this is a much disputed point. Some critical voices argue that mini-publics tend to appeal or be accessible to a *certain* group of people, both in the selection procedure and during the deliberations, therefore undermining the objective of representation and inclusiveness.

Firstly, there is the question of representation and the selection procedure. The intention of this procedure is to reflect the different opinions present in the larger population. But this raises the question if mini-publics actually succeed at representing those different opinions. As Smith (2003) states: “Citizens who share similar socio-demographic characteristics do not necessarily share the same views and attitudes” (p. 91).

Similarly, Lafont (2015) criticizes the whole idea of putting a small group of random citizens in charge of representing the “whole population”. She argues that by “blindly deferring” (p. 358) political decisions to a relatively small group of selected citizens, these decisions are not concerned with enabling *all* citizens to identify with the policies that come forth. She concludes that therefore lottocracies¹ “fall into the anti-democratic temptation of taking shortcuts” (Lafont, 2015, p. 356).

Additionally, when this select group of citizens undergoes such a process, they are undoubtedly changed (through the information they receive, the exchanges with other perspectives, the exceptional amount of time they spend on a specific issue,...) and are therefore less “random” or “lay” as is claimed, and implicitly not representative of all the citizens (Lafont, 2015).

The inevitable degree of self-selection also undermines the idea of representativeness (Smith & Setälä, 2018): despite the random sampling procedure and the subsequent selection of a diverse group of citizens based on a socio-demographical and economic criteria, citizens receiving an invitation still need to accept and respond to it. Mayer et al. (1995) note that some groups, i.e. those less interested and less educated, are more difficult to reach.

This leads to a fundamental question: if mini-publics appeal to a *certain* group of people, then who is included and who is excluded?

Williams recognizes that DD offers the possibility of “knowledge mobilization that is potentially inclusive of all knowledge systems” (Baber & Bartelett, 2018, p. 3), but questions whether this potential is realized in practice, especially regarding marginalized groups. She states that the reasons at the core of DD, those on which the legitimacy relies, are not the reasons that results in everyone’s best interest, but those that are *acceptable to all*. However, “whether or not citizens will recognize others' reasons as reasons may be a socioculturally contingent matter. Moreover, it seems likely that the contingency of this recognition may tend to be resolved in a manner that systematically disadvantages the reasons of marginalized groups in a discursive exchange” (Williams, 2000, p. 125). So not only are some social groups, i.e. marginalized groups, more difficult to reach and to include, even when their participation is achieved, their social position might cause their reasons to be discredited as reasonable by the other participants. By consequence, instead of enhancing the inclusiveness of public policy-making, DD holds the risk of perpetuating existing power imbalances; all the while pretending to be a inclusive and more legitimate.

¹ By the term lottocracy, Lafont refers to the democratic processes, like mini-publics, that are based on “sortition procedures such as lotteries or random selection among ordinary citizens” (Lafont, 2015, p. 357)

As a response to this type of critique, other approaches emerged within DDT works, such as the use of *considerations* rather than reason (Baber & Bartelett, 2018). These considerations include other forms of communication such as emotions, stories and narratives, providing everyone with the means to express themselves.

2.3 DELIBERATIVE DEMOCRACY AND THE ENVIRONMENT

Until now I have explored DD as one of the ways to include citizens in political decision-making. As previously mentioned, this research is specifically about *environmental* mini-publics. I will now take a close look at what DD has to offer specifically for environmental issues and policy-making.

First, let's start with a definition of *environment*:

A combination of the various physical and biological elements that affect the life of an organism. Although it is common to refer to 'the' environment, there are in fact many environments, all capable of change in time and place, but all intimately linked and in combination constituting the whole earth/atmosphere system. (Kemp, 2005, p. 127).

Again, this research is specifically about the environment, but since I occasionally refer to climate related mini-publics, some explanations are in order. Kemp (2005) offers the following definition of climate:

The combination or aggregate of weather conditions experienced in a particular area. It includes averages, extremes and frequencies of such meteorological elements as temperature, atmospheric pressure, precipitation, wind, humidity and sunshine, measured over an extended period of time—usually a minimum of thirty years. (p. 71)

So as a domain within the vast notion of the *environment*, these two are closely linked, though not interchangeable. I would also like to add that these definitions are bound to be biased or incomplete. The separation of “the natural world” and the “human world”, or what Whitehead has called “the bifurcation of nature”, is at the heart of the hegemonic paradigm of the West (Debaise, 2017). And so these notions of environment and climate are contingent and should be used mindfully.

The last years, mini-publics have mushroomed in Europe and beyond. Specifically environmental ones and climate change related panels, called climate assemblies, have proliferated (Elstub, 2021), such as

the French Citizens' Convention on the Climate (Convention Citoyenne Climat)², the Climate Assembly UK³, or for instance the Global Citizen's Assembly in preparation of the COP26⁴.

According to Niemeyer (2013), some critics deem the association of democracy, and especially DD, and the complexity and urgency of the climate crisis as incompatible. But he argues that on the contrary, democracies are particularly well-suited to address climate and environmental questions because of their inclusive and responsive character (Baber & Bartlett, 2018; Machin & Smith, 2014; Niemeyer, 2013; G. Smith, 2003) and citizen deliberation "improves the prospect of increasing the demand for action on environmental issues such as climate change by making salient those dimensions that are otherwise crowded out by more tangible and immediate concerns" (Niemeyer, 2011, p. 435).

Inclusiveness is also one of the main aspects put forward by Baber and Bartlett (2018) and the possibility DD offers to include "lay" knowledges. Additionally, they argue that DD brings an ethical reflection to the table that leads to more just and acceptable decisions. As Graham Smith (2003) points out, the notion of environment is surrounded with pluralities: a plurality of issues, of movements, of values, which are often incompatible and incommensurable. There where contemporary liberal democracies are criticized for not offering the opportunities to express and integrate this plurality of values and being too far removed from citizen's everyday perspectives, DD steps in as a possible answer, according to Smith:

Deliberative democracy promises much: more trustworthy and legitimate forms of political authority based on inclusive and unconstrained dialogue, more informed political judgements and decisions, and a more active account of citizenship. It promises a political environment within which the plurality of environmental values can be effectively and sensitively assessed and considered in decision-making processes. (2003, p. 61)

So, Smith (2003) concludes that the strength of DD for environmental decision-making relies on the space it creates where different environmental values can come together and be expressed and explored. This encounter with the plurality of values provides the participants with the opportunity to broaden or even change their "conceptualization of relations between human and non-human world" (p. 65) and critically engage with different types of knowledge.

² <https://www.conventioncitoyennepourleclimat.fr/>

³ <https://www.climateassembly.uk/>

⁴ <https://globalassembly.org/>

2.4 EFFECTS ON PARTICIPANTS

Since my research question focuses on how the participation in an environmental mini-public influences the participants' position towards their environment, I will now take a closer look at what the existing literature tells us about the general effects of mini-publics on its participants.

The participants acquire greater self-awareness and develop competences and knowledge, both on the subject as on the deliberation process (Einsiedel & Eastlick, 2000; Mayer et al., 1995). I will first explore the changes that are in direct relation to the subject, namely the education and enhanced awareness, with a special attention to environmental and/or climate related findings. Second, I will look at the personal impact such as the development of competences and personal evolutions that have been observed in mini-publics.

2.4.1 EDUCATION AND AWARENESS

Given the diversity of information provided, the exchange of new perspectives and the possibility of discussions with experts, mini-publics are usually praised for their educational properties. This, in addition to the exceptional amount of time participants spend on the subject at stake, results in the development of “more sophisticated and better informed opinions and argumentations” of the participants, which is often appreciated by the experts of the advisory committee (Einsiedel & Eastlick, 2000; Chambers, 2003; Hendriks, 2005; Mayer et al., 1995; Rauschmayer & Wittmer, 2006).

A consequence of this learning process is that the citizens acquire greater awareness of the issue at stake (Ghimire et al., 2021; Himmelroos & Christensen, 2014; Mayer et al., 1995). Specifically for environmental topics, Niemeyer (2013) argues that the citizens are capable of grasping the complexity of environmental issues through deliberative processes involving different interlocutors, perspectives and interests and providing the structure to interact with these sources of knowledge and information. These different forms of interaction lead to “deeper forms of cognition” for the “lay” citizens.

Zooming in on climate assemblies, participation is perceived to lead to a greater acknowledgement of climate change and its negative impacts (Ghimire et al., 2021; Niemeyer, 2011). Additionally, participants seem to put an emphasis on collective action, advocating for a closer collaboration between the state and civil society. Or in Niemeyer's (2011) words: “Deliberation enhanced the tendency to view the issue of climate change through the lens of collective identity in solving a common-good problem” (p. 443).

2.4.2 PERSONAL IMPACT

Apart from acquiring scientific knowledge and awareness, the existing literature on opinion change during deliberative processes seems divided. Button & Ryfe (2005), Hendriks (2005), Sanoff (2006) and Zurita (2006) argue that the process does changes opinions, preferences, and/or attitudes and even core values (Mayer et al., 1995), while Niemeyer (2011) does not observe significant change.

Himmelroos and Christensen (2014) point out that if opinion change occurs, it varies widely in its form, extent and causes. In their empirical research on the causes of opinion change during a mini-public on nuclear power in Finland, they found that opinion change occurred, especially with those who experienced a “higher extent of deliberative reasoning” (p. 54).

This change in opinion, however, was not unidirectional: some participants took a more extreme stand (in favor or against nuclear power), while most shifted towards a more centric position. This corresponds to the findings of Ghimire and colleagues’ (2021), they found that citizen deliberation can reduce polarization, especially on complex matters such as climate change. Additionally, Ghimire et al. (2021) note that those who indicated their political orientation as being right-winged or neutral changed their opinions more significantly. They conclude that “the deliberation which took place can be said to have been effective by the criteria of opinion change through rational discourse, and positive outcomes for participants’ understanding of the topic” (p. 8).

Niemeyer (2011), in contrast, finds no evidence for changing values or capabilities. He states: “deliberation does not fundamentally change individuals or inculcate a sense of moral duty. The particular values that prevailed in both issues were always present (and measurable), even if they were latent in expressed preferences” (p. 125). However, in a later text he finds that “certain values, such as concern for the environment have become activated as part of the process” (Niemeyer, 2013, p. 443).

His research finds that deliberation can have an emancipatory effect as it allows participants to move away from “the distorting role of symbolic discourses” (Niemeyer, 2011). With “symbolic discourses” he points at the prevailing political discourse, often emotional or simplified, which has a distortive role in leading citizens to express preferences that do not comply with their actual position. Deliberation can be emancipatory as it tends to push reflections beyond these superficial symbolic discourses and towards the actual position of the citizens. This is in part due to the greater “intersubjective consistency”, or shared logic, that is created throughout the deliberative process.

Some authors also find changes in values that are not directly related to the subject at hand. Einsiedel and Easterlick (2000), argue that in addition to the great educational impact, the CC on food biotechnology in Canada led the participants to “sharpen their values on the nature of citizenship” (p. 334) and “heightened their citizenship roles” (p. 336). This is illustrated by the participants’ ongoing

engagement with the issue through interviews in media programs, interventions in ministries, talks in their (local) communities and workspace and sharing this experience with friends and family.

Changes in attitudes towards politics and science in general have been observed as well. Ghimire et al. (2021) find that the process “increased their confidence in international agreements, experts, and science after participation in the event” (p. 7). Similarly, Mayer et al. (1995) conclude that “changes in some personal values were surprisingly strong. This may be interpreted as a personal internalization of the subject and conference process” (p. 122).

2.4.3 ENVIRONMENTAL SUBJECTIVITY

Moving away from DD and the global North, Arun Agrawal (2005) studied the influence of villagers’ participation in local forest councils in Kumaon (India) on their position towards their environment. Agrawal observed that in a first instance, villagers perceived the forest solely as a tool for their needs while not being responsible for its preservation:

Hukam Singh, a young man with a serious air, told me that it was futile to try to save forests. Too many villagers cut too many trees. Too many others did not care. He himself was no exception.

“What does it matter if all these trees are cut? There is always more forest,” he said. (Agrawal, 2005, p. 1)

After participation in a local forest councils, however, a mentality shift was observed. As Agrawal calls it: an *environmentality*, this is the action of the villagers taking the protection of the forest into their own hands as their main goal:

He explained one afternoon, “We protect our forests better than the government can. We have to. Government employees do not really have any interest in forests. It is a job for them. For us, it is life.” He went on. “Just think of all the things we get from forests—fodder, wood, furniture, food, manure, soil, water, clean air. If we do not safeguard the forest, who else will? Some of the people in the village are ignorant and so they do not look after the forest. But sooner or later, they will realize this is very important work. (Agrawal, 2005, p. 2)

He argues that through their participation in environmental governing and monitoring, the local residents of Kumaon developed an environmental subjectivity (hereafter ES) with varying degrees: the more they were involved in this monitoring and governing, the more they perceived the forest as important and the more eager they became to protect it.

Agrawal defines the environmental subject as “those who thus care about the environment (...) More precisely, the environment constitutes for them a conceptual category that organizes some of their

thinking; it is also a domain in conscious relation to which they perform some of their actions” (2005, pp. 164–165).

Based on Agrawal’s framework, Segi (2013) analyzed whether governmental initiatives to foster environmental subjectivities among the inhabitants of Grenade (Southeast Cebu) were successful. The goal of the initiatives was to get the harvesters on board of the Marine Protected Area (MPA) project and make them “avid protectors” (p. 339) of the marine environment. They did so by involving them in annual monitoring exercises, as well as providing them with seminars and information about marine ecology. Segi (2013), however, found that the intended transformation did not occur. He suggests that the goal of the initiative was not obtained as the MPA process was imposed on the villagers in an exogenous way. Although the goal was not obtained, Segi does observe a “weak form of environmental subjectivity, guided by culturally intimate comprise” (p. 343). In other words, the MPA project did influence the villagers’ idea and behaviors towards protecting their (marine) environment, but in a way that complied with *their* understanding and context specific knowledge. Segi concludes that the situation in Grenade is characterized by a compromise between governmentally imposed regulation and context specific self-regulation.

By exploring this “alternative” or “weak” form of ES, Segi challenges Agrawal’s original definition. He argues that Agrawal’s definition is based on people’s participation in governance, neglecting other aspects of social identity and therefore excluding the possibility of a variety of subjectivities that can derive from it.

Agrawal’s research was not carried out through the lens of DDT, nor do these forest councils fall under the category of mini-public. But as opposed to most research on opinion, value, preference change in mini-publics, his framework is specific to environmental topics (in his case the forest in Kumaon). Given the intertwined nature of socio-environmental relations previously mentioned, I argue a theoretical framework specifically adapted to environmental questions is best suited for this research, despite the many differences between these two cases. I do not expect to find the same exact dynamics as Agrawal did. As Segi (2013) pointed out, different forms and intensities of ES exist depending on the context and the specificities of each case. This master thesis therefore focuses on discovering if there are similarities to Agrawal’s work, and what form they take specifically for this case study. Differences between these two cases are not to be ignored, therefore a more detailed comparison will be given in the section methodology.

METHODOLOGY AND RESEARCH SETTING

To analyze whether or not the citizen's environmental subjectivity towards the environment changed during the deliberative process, my research question is the following: How does an environmental mini-public influence the ES of the participants?

Using Agrawal's framework I analyzed if and how the participants' perception and behavior was influenced by their participation in an environmental mini-public.

Agrawal's definition of ES operates on two levels: a cognitive one, organizing "some of their thinking", and a behavioral one, orienting "some of their actions". This duality is at the core of the analysis, meaning that I will first look at how the participants' perception of their environment changed and afterwards whether or not this translated in a form of action.

As I will further explain in the next chapter, my case called *Vores Hav* (Our Sea) was situated in the Global North, more precisely in Denmark. The environment and climate change are omnipresent topics in most contemporary Western societies, and Denmark is no exception: in the European survey on the general attitude of the Danish population towards the environment, 67% report that they find it very important and 31% finds it fairly important (European Commission, 2017). Additionally, the World Population Review (2022) declared Denmark "the most environmentally friendly country in the world. Denmark stands out for its high scores in the 'biodiversity and habitat' and 'air quality' categories. In addition to implementing some of the world's most efficient policies to reduce greenhouse gas emissions and prevent climate change, Denmark has long focused upon sustainability" (World Population Review, 2022). Consequently, I believe the environment will already constitute a "cognitive category that orients some of their thinking" (Agrawal, 2005, p. 164) to most of the participants. My hypothesis therefore is that the ES of the citizens is not created, but enhanced to a point that it changes their perceptions and behaviors towards the issue at stake.

3.1 CASE STUDY

In order to test this hypothesis I picked a case study based on multiple criteria: First, the subject of the mini public had to be related to the environment. Second, I looked specifically for a CC, as its nature is transdisciplinary and suitable to environmental topics. The third criterion stemmed from practical concern: the case study had to be situated in a country where I could make myself understandable, meaning that French, Dutch or English should be common. With these criteria in mind, my online search led me to Denmark, where a CC on the Danish marine environment had been held in 2020.

3.1.1 CONTEXT: DENMARK

As I have mentioned above, the institutional settings and culture are determinant for how mini-publics are received. In this brief section I will review some characteristics of Denmark relevant to this research and draw a (small) picture of the Danish context.

On a general note, authors have argued that Denmark is very receptive to participatory processes. As previously mentioned, Dryzek and Tucker (2008) note that Denmark is characterized by a “dominant egalitarian and participatory ethos” (Dryzek & Tucker, 2008, p. 867), the recommendations tend to be more accepted and “provide an important base for policy directions” (Einsiedel & Easterlick, 2000, p. 326).

Joss (1998) argues that the Danish culture is open to citizen participation for three reasons: Firstly, the Danish have a “strong notion of 'civil society' by which is meant a high level of awareness and engagement of Danish citizens with respect to societal issues” (p.19), which then translates into decision-making. Second, they are well-aware of their rights as citizens. And last, negotiation and compromise are well embedded in the Danish political culture. In the parliament, for example, coalitions had to be formed in order to achieve a majority.

As for the Danish Board of Technology, the Danish parliament mandated its creation for technology assessment in 1985. Their mandate was independent as regards to the topics and methods used (Joss, 1998). This direct link with the parliament conferred a particular political position to this institution as well as bigger accountability (Rauschmayer & Wittmer, 2006).

However, in 2011 the parliament cut its ties with the Danish Board of Technology and in 2012 it became a non-profit corporate foundation called the Danish Board of Technology Foundation (F. Langkjaer, personal communication, September 12, 2021). Although the effects of this evolution on the impact of the recommendations are yet to be studied, Hendriks (2005) points out that generally non-state mandated CC tend to have less impact than those orchestrated by a public authority. This was the case with the Vores Hav CC which was requested and funded by the Velux Foundation.

3.3.2 CASE: VORES HAV

Vores Hav was a CC on the marine environment of Denmark organized in the fall of 2020 by the Danish Board of Technology. It aimed to “raise the public’s attention about the marine environment and to expand the political debate with views and opinions of the citizens” (*Consensus Conference-Our Ocean*, n.d.).

After 1000-2000 invitations had been sent out, fourteen lay citizens with no expertise in this subject were selected based on age, gender, education, employment and residence.

This process was spread out over three week-ends. In the first two week-ends the citizens discussed the information material they received and listed questions they had for the experts. This introductory stage was designed by the planning group consisting of four people (see Annex A). Each member of the planning group had diverse domains of expertise regarding deliberative processes and the marine environment. This group was also in charge of choosing and inviting experts and stakeholders to answer the citizens' questions.

The actual conference took place in Christiansborg, the government building in Copenhagen, from Friday 23th of October to Monday 26th and was open to the public. On the first day, a board of 26 experts and stakeholders (see Annex A) came to answer the citizens' questions, covering various aspects of this topic. The next day the citizens had the opportunity to ask additional questions and started working on the final document. On Sunday, the first draft of the document was collectively discussed and then refined in smaller groups. Finally, on the last day, the panelist presented their document to the experts, politicians, audience and the press. The observations and recommendations of the citizens were structured in seven themes: nutrients, environmental pollutants and marine litter, climate, fisheries, management, legal status of the sea and mindset and awareness.

After some corrections and additions of the experts, this final document was handed over to the parliament. Afterwards, the organizers of the Danish Board of Technology, along with the planning group and the experts, operationalized these recommendations. This was added to the original document of the citizens⁵.

3.2 RESEARCH SETTINGS

To provide an answer to my research question, data was collected through semi-directive interviews with nine of the fourteen citizens that participated in the Vores Hav CC. The interviews were held in the summer of 2021, approximately one year after the CC took place. This semi-directed structure allows the conversation to flow naturally, while ensuring similar content between the interviews and thus allowing comparisons in the analyses.

The composition of the sample was clear-cut: the fourteen participants of Vores Hav were the target, as well as the two organizers, since their perspective as "outsiders" and their experience in organizing this type of process could provide useful insights.

⁵ Available on: <https://tekno.dk/project/our-ocean/?lang=en>.

I first contacted the director of the Danish Board of Technology and designer of the Danish CC, Lars Kluver, who directed me to the project manager of this CC. From then I adopted a snowball sampling approach. In total I managed to get in touch with eleven of the fourteen participants. Eight citizens were interviewed at the place of their choosing, as well as two project managers. A more detailed description of the social and economic characteristics of the sample is provided in Annex B. One participant was interviewed at a later time over a Zoom call. The interviews were held in English and lasted between 35 and 70 minutes. The interviews were recorded, to which the participants consented by signing the plain language statement. One of the citizens indicated that she did not speak English. A list of questions in Danish was therefore sent out, but the results did not provide enough answers to be considered for analysis.

To prepare the semi-directed interviews a topic list was drafted, in addition to pre-established questions (see Annex C). These questions were not to determine the course of the interview beforehand, which would go against the flexibility that is at the core of the semi-directive approach. Drafting the questions beforehand functioned as a (linguistic) support since English is not my native language.

The questions and topics discussed can be grouped into three categories. The first and most relevant for gaining insights in the citizens' ES, was related to the participants' relationship to their environment, and more specifically the sea. The questions aimed to understand how the citizens perceived their relationship to the sea, what they felt their role was in this relationship, how their perceptions and attitudes did or did not change during or after the deliberative process. The next section tackled environmental politics: how the participants felt about politics related to the sea, whether they recognized aspects they had discussed and if they agreed. The last section considered the process and the CC model itself: did the citizens feel like they could really speak their minds, were their opinions respected and taken into account, how did they feel during the process.

I transcribed the interviews according to the verbatim-principle, meaning that it was written down as close to the conversation as possible, including pauses and paralinguistic behavior such as chuckling, coughing and hesitations. I then proceeded to the analysis.

Limitations of the study

As with any research, the limitations to this research are multiple and critical reflection is required. First, there are some practical issues, such as the language difference. The interviews were conducted in English since I do not speak Danish. Though all participants were fluent, many of them struggled to find their words from time to time, which sometimes led to feelings of frustration. This language "barrier" also might have discouraged some of them to elaborate their thoughts.

Related to this is the fact that I am not Danish and do not know the Danish context very well. The literature (cf . infra) consulted can only bring me so far and this is especially problematic since many authors have emphasized the importance of the political and cultural context of deliberative process (Dryzek & Tucker, 2008; Hendriks, 2005; Joss, 1998; Rauschmayer & Wittmer, 2006).

The last practical issue concerns the time gap. As I previously mentioned, the CC was held in the fall of 2020 and most of my interviews were conducted in the summer of 2021. I believe this gap to be a limit as well as a strength: although some participants had some trouble remembering the details of the process, this demonstrated the medium term effects of the CC. As ES situates itself on a rather profound cognitive level, the time gap allows me to look beyond these “superficial” and possibly fading primary effects.

Positionality

In this section I will briefly discuss how my positionality might have influenced this research. According to Chacko (2004) positionality refers to the “aspects of identity in terms of race, class, gender, caste, sexuality and other attributes that are markers of relational positions in society, rather than intrinsic qualities”. Nadège Compaoré (2017) additionally stated that reflexive sensibility is an important methodological and epistemic instrument, since it allows the researcher to highlight the influence their identity has in the production of knowledge (p. 109)

First, I think if anything, my relatively young age might have played in my advantage when trying to recruit the participants. I consciously put this attribute forward hoping people would sympathize and be (more) willing to help me. In this same light, I might have had a closer relation to the participant that was my contact person prior to the interview. One participant offered that I would stay for dinner with her and her family. I made sure to do the interview before getting into this more informal setting, as to not influence the course of the interview. However, the discussions we had afterwards also allowed me to get to know her better than the other participants.

As I previously discussed, I am not Danish. On the one hand, this poor knowledge of the Danish context entailed the danger of interpreting some things differently. On the other, this encouraged some participants to explain some “typical Danish things” they otherwise would not have, consequently elaborating their thoughts without making assumptions.

I always initiated the interviews by giving a brief presentation of myself and my interests. Some of the participants, as well as myself, might have felt a form of complicity when we had a similar academic background or interests.

In my interview with one of the organizers of the panel, I sometimes felt some sort of power relation. The woman in question seemed to try and influence my work and findings. I presume this is partly due

to the many years of experience she has in organizing panels, but also because she would not want this research to reflect badly on her work or that of the Danish Board of Technology.

3.3 ANALYSIS

3.3.1 HERMENEUTIC INTERPRETIVE APPROACH

Although all the participants of this research participated in the exact same process, they each experienced it in a different way. I opted for a type of qualitative content analysis as this allows me to get a deeper and more personal understanding of how each participant experienced the CC and how it influenced their perception of environmental issues, in this case the sea. The qualitative method enabled me to “expose the diversity of perspectives different actors or groups might hold in relation to a specific problem, the nuances in meaning attributed to phenomena, and the dominant views that are present in a given context” (Preiser et al., 2021, p. 273).

I chose the hermeneutic interpretive approach. This approach stems from the field of psychology and focuses on interpreting the meaning that arises from experiencing a particular event or phenomena (Preiser et al., 2021) through one’s self-understanding and that of the broader social setting (West, 2016). It “is particularly suitable for exploring consciously articulated human perceptions, understandings and meanings” (Schultz et al., 2018, p. 7). The reasons for choosing this hermeneutic approach are threefold. The first is the diversity of perspectives and experiences, the second is the many factors that can influence someone’s ES, and the last is the presence of different types of socio-environmental relationships and ways to understand and describe these.

As Smith et al. (2009) explain: “It [interpretative analysis] wants to know in detail what the experience for this person is like, what sense this particular person is making of what is happening to them” (p. 5) and therefore draws on the significance of this event to the participant. It is for this reason that the interpretative phenomenological analysis is often referred to as a double hermeneutic because the researcher is tasked with interpreting someone’s reflection and interpretation of a certain experience (Preiser et al., 2021; Smith et al., 2009). This relates to one of the limitations of this method, namely that the individuals might not be aware of their “own feelings or attitudes, that they may not have access to the objective norms, rules and values that shape their actions” (West, 2018, p. 32). I kept this risk in mind when conducting the analysis.

Once the data was collected, I first thoroughly studied it as to get a first understanding of the interviewee’s point of views (Smith et al., 2009). Subsequently, I identified recurring themes to understand what elements were important to the participants (Preiser et al., 2021; Reid et al., 2005). I linked them as to discern certain patterns and commonalities across the different interviews (Reid et al.,

2005). Finally a “full narrative” is developed by the researcher(s), substantiated by extracts of the interviews (Reid et al., 2005; Smith, 2009).

The functions of these extracts are twofold: on the one hand to stay close to the participant’s statements, to create a *dialogue* between the researcher and the interviewee. On the other, to use as evidence for the claims and analysis of the research in order to ensure transparency (Smith, 2009).

Modus operandi

The interpretive hermeneutic approach inspired the analysis of this research. For this MAX QDA was used to assist with the coding and management of the data. I started with coding for large themes, and subsequently identified subthemes (see Annex D). As previously explained, the four main themes were 1) the environment, 2) the sea, 3) politics and 4) the deliberative process.

Next, I selected the codes I considered relevant to my research question and created a table with all participants’ answers to easily compare them and consequently discern patterns. After this first analysis, I went back to the transcripts to verify if I had not left out certain important elements and to make sure that my interpretations were close to what the interviewees had said. This iterative movement is part of the interpretive hermeneutic approach (West, 2018). I then added some details, such as the role of emotions and the feeling of powerlessness that discouraged some to take further action.

As previously mentioned, there are differences between this case and the case Agrawal described to build his theoretical framework of ES. In the next section, I will make a detailed comparison of these two cases and argue why I believe it remains an interesting framework, despite these dissimilarities.

3.3.2 THE ENVIRONMENTAL SUBJECTIVITY FRAMEWORK

Arun Agrawal’s (2005) case is different from mine and these differences need to be acknowledged when adopting this framework.

Generally, one should always be careful when adopting a framework of the Global South in the Global North. First, because of the vastly different contexts. It is the context which confers meaning to objects, artifacts, ideas and knowledge (Grosfoguel, 2020). Instead of extracting and assimilating resources of the South to one’s benefit without acknowledging who and where they were produced, what Leanne Betasamosake Simson has called “epistemic extractivism” (p. 208), there needs to be a *horizontal dialogue*: Grosfoguel (2020) argues that “seeing indigenous peoples as social actors who think and produce valid knowledge for all, rather than as a resource that can be extracted, is the first step toward the epistemic decolonization which Leanne Betasamosake Simpson proposes” (Grosfoguel, 2020, p.

212). My intentions are not to assimilate knowledge or ideas from the South and claiming them as my own and I fully acknowledge the fact that the framework I use, created by Arun Agrawal (2005), will not have the same results in the vastly different context to which I apply it and I do not mean to ignore these differences.

On the contrary, Agrawal produced a scientific framework which, as any scientific work, from both the South or the North, is meant to be reproduced and tested. As Meghji (2021) points out, a part of decolonizing sociology (and Western science more generally) resides in rejecting the idea that the West is the epistemic center of the world and instead extend the scope to other parts of the world and other types of knowledges and evolving to a conversational or relational sociology (Meghji, 2021).

Having now pointed to the importance of situating a framework and a case study in their respective context, I will proceed with a more elaborate comparison of Agrawal's case and mine (Summary in Figure 2).

The first dissimilarity is that the social, political and cultural context of both studies. This means that the socio-environmental relationships and perceptions are different in the two cases, as well as the forms of governance. Consequently, the impact of participating in some form of environmental governance on the participants' perception also would be very different. I therefore do not expect to find the same results in my analysis as Agrawal, but my intention is to evaluate whether there are similarities and disparities and what form they take in the specific case of this Danish CC.

What the initiatives have in common, is their top-down nature that include a relatively small group of "ordinary" citizens assembled to extensively talk about a specific environmental topic. However, the authority conferred to these participatory processes differs in Agrawal's case and the Vores Hav case: Kumaon's forest councils were mandated by the state and had a direct say in the regulation and monitoring of the forest, whereas mini-publics are "merely" advisory and temporary. Additionally, this CC was mandated, funded and organized by two independent foundations instead of a public authority, thus enhancing the risk of having little or no impact on decision-making (Hendriks, 2005). In a nutshell, where Agrawal's subjects were officially recognized in the monitoring and governing of the forest, the CC's output is "merely" advisory and its impact is unknown.

Agrawal speaks of environmental practice and regulation. Can we say that environmental mini-publics fit that description? As previously discussed, the impact of mini-publics on policy-making depends on different factors. In other words, the extent to which the participants take part in *regulation* is case-specific and remains to be seen. I argue that the participants of Vores Hav did take part in environmental practice as they both spent a significant amount of time on a particular (in this case environmental) topic in which they received diversified information, and got the opportunity to exchange with other citizens, experts, and politicians.

Another difference is linked to the question of proximity, both in the mode of governance and in the subject. When exploring this cognitive and behavioral transformation, Agrawal investigates the link between “governing at distance” and “intimate governance”, where the state (that governs at a distance) installed the forest councils (“intimate governance”) and accepts its decisions. He argues that the latter can reshape and reinvent the beliefs and interests of the participants and tighten the relation between the decision makers and the “common villagers”:

(...) participation in council activities is not a magic bullet that necessarily leads to transformation of subject positions (...) and yet it constitutes a valuable window on the changing beliefs of those who come to be involved in practices of environmental regulation (Agrawal, 2005, p. 185).

In Agrawal’s version of intimate governance, intimacy is linked to geographical proximity: the forest councils that form the subject of his research are within the range of its village and forest. Relating back to mini-publics, their scale can vary from local to national or even transnational. Its subject is of common concern, but during the selection procedure the organizers are very careful in selecting only citizens that do not have a direct interest in the subject, as opposed to Agrawal’s subjects that lived very close to the forest and relied on it for firewood. However, in the foreword of their document, the citizens stated that the sea is an omnipresent factor in Denmark and in Danish culture. To put it differently, although the citizens were not (all) in (physical) proximity to the subject, they claimed to feel connected to it in different ways:

With its long coastline, Denmark is culturally, historically and economically closely linked to the sea. We use the sea in many ways. We enjoy its resources in the form of food, sand and gravel, oil and wind. We also use the sea as a transport route. And we benefit from the sea when we swim, surf, fish and dive, and when we move in and look at nature. (Teknologirådet - Danish Board of Technology, 2021).

In both cases, participants were originally “uninterested” in the management and governance of their environment, but were still somehow connected to it. In Agrawal’s case the connection is geographical and through instrumental use, In Vores Hav’s case through a “cultural, historical and economic connection”.

Figure 2 - A comparison of Agrawal's case study and Vores Hav

	Agrawal's case	Vores Hav
Geographic setting	Global South: Kuamon, North of India	Global North: Danmark
Subject of interest	Forest	Sea and ocean
General relationship to the subject	Geographic proximity, instrumental use No direct interest	Cultural or even sentimental proximity. No direct interest
Type of governance	Local forest council	Deliberative mini-public (consensus conference)
Scale	Local	National
State mandated	Yes	No
Clout	Yes	Unknown

Despite these geographical, cultural and political differences, I believe that Agrawal's framework still holds elements and mechanisms that are interesting and relevant even to other, (very) different cases. As opposed to most research on position, opinion or preference change in deliberative process, Agrawal's framework is specific to environmental issues. I argue that the intertwined nature of socio-environmental relations (Folke et al., 2016) requires an environmentally specific framework. Additionally, part of the interest and innovation of this research relies on investigating whether this framework has similarities in a completely different context.

RESULTS AND DISCUSSION

In this chapter, I will analyze the collected data to answer my research question: How does an environmental mini-public influence the ES of the participants?

To set the broader context, I will first briefly examine how the participants viewed their relationship to the environment generally. Since the CC's specific subject was the sea, I will quickly move on to review what the participants felt towards the sea prior to the CC. Additionally, this relationship, both to the environment and the sea, motivated most participants to join the CC in the first place.

Once I reviewed the participants' perception of the sea prior to the CC, I will move on to look at how this process changed the participants' subjectivity. I will follow the structure of Agrawal's (2005) definition, meaning that I will first discuss if and how the participants' perception of the sea changed. This is to assess whether the sea "constitutes for them a conceptual category that organizes some of their thinking" (p. 164). Then I will explore whether this changing perception entails a changing behavior, referring to the second part of Agrawal's definition: "a domain in conscious relation to which they perform some of their actions".

4.1 ENVIRONMENTAL SUBJECTIVITY PRIOR TO THE CONSENSUS CONFERENCE

4.1.1 RELATIONSHIP TO THE ENVIRONMENT

Although environmental values are not at the heart of this research, the participants were asked how they felt about their relationship to their environment to understand the broader context of their perception of the sea.

All participants mentioned their interest for the environment and most have expressed that they felt it was important to them for different reasons. When asked about their relationship to the environment, some mentioned more recreational elements, such as going out in "the nature" for walking, enjoying its peace and beauty and so forth.

The environment is a big part of my every day. I live here in Alma in Copenhagen, which is very close to the beach and a lot of nature. I have a very big dog so I bring him into nature a lot. - Anne

Some participants, such as Kirsten, mentioned the relation of dependency between humans and our environment for our survival and that it is therefore our responsibility to take care of it.

I like ecology and I think we, all people, are responsible for the environment. So we have to do what we can. As individuals and as nations and citizens of the world. It's a worldwide problem, so we have to do something if you want us to continue to exist. - Kirsten

Similarly, another participant stated:

I think it's important that we take care of what we have, just like you take care of your own body or your children or your house, or you go to the dentist, or whatever you can do but then we also have to treat our world and nature in a nice way, so that it will keep on going and we could be a little part of it forever. - Mette

In stating this dependency and responsibility, some mentioned third parties such as close relatives or more abstractly, future generations.

I live in the environment, I depend on it. If it goes, I go too. That's one thing I know. But my grandchildren, I do not want them to go. - Peter

In response to this relationship, some of the participants mentioned that they actively changed their behavior to live more "environmentally consciously" for instance by not eating meat, recycling, picking up trash etc. One participant even considered it to be a part of her identity:

I think I try to live very environmentally conscious and I mean, obviously there are a lot of issues with the climate, with global warming and a lot of manmade problems. To me it's really important that we, as mankind, sort of try to work against these problems that we have largely also caused. And I try to live sustainably in day to day life and I am a vegetarian for example, also because of environmental reasons, yeah that's just generally a part of who I am, I guess. - Gitte

Some also associated the environment, and particularly climate change, with negative feelings, such as fear, worry and, powerlessness because they felt like they could not have a meaningful impact even if they wanted to.

This interest and importance of the environment is what motivated all the participants to respond to the initial invitation for the CC. Other (non-environmental) reasons were also mentioned, such as a general interest in learning more about an unfamiliar subject, as well as considering this opportunity as a duty and/or a unique chance, even an honor, to actively contribute to democracy.

Many of the participants stated that because of this shared importance it was quite easy to get to an agreement. However, there were some differences in values or opinions that led to disagreements. One topic specifically sparked some heated discussion and unexpected emotions:

Some people stated: “The fish feel no harm, they are not hurting in any way it’s just a fish” and some other people, like myself, were like “this is an animal, we should treat it respectfully and the way we do it now is animal cruelty”. I was surprised by how much emotion it would awaken in me actually, to meet someone who was so different from my views. ... I think of myself as a very democratic person, like very open minded but there were certain topics where I was like: “If this is how you’re feeling I cannot sign this paper, I would rather walk out the door and not be part of it”. Yes, I felt very strongly about it and I was very surprised. - Anne

Looking back at the first part of Agrawal’s (2005) definition of the environmental subject: “The environment constitutes for them a conceptual category that organizes some of their thinking”, I argue that the participants already had some form of ES before entering the CC since they all stated their interest in the environment. This confirms the first part of my hypothesis

Since the CC was about the marine environment specifically, I will zoom in on the ES of the participants regarding the sea or the ocean, considering both the cognitive and behavioral aspect of Agrawal’s definition.

4.1.2 RELATIONSHIP TO THE SEA

Before the CC, most of the participants partly associated the sea with recreation and generally with positive feelings. They mentioned various activities such as swimming, sailing, snorkeling, diving, fishing, often associated with good memories. Two participants even mentioned that the sea made them think of freedom.

A few lived close to or had a summer house by the sea, and therefore considered it is an important part of their lives.

It's something which I'm used to having, not in my everyday life, but because I live by a lake, I have a summer house which is directly in front of the sea and it's been a great part of my life. - Mette

Similarly, another participant described her first reaction to the invitation of the CC:

It's funny because my first instinct was like: "I do not know", but because the ocean was so so relevant to me, I love the ocean. It's right here. I use it on a regular basis. It's been a big part of my life so it was like: "The ocean ? Hell yeah I'm going to talk about the ocean". - Anne

Besides this emotional connection, a few participants stated that prior to the CC they "knew nothing about the sea" but were eager to learn more about it. Others said they were aware of the fact that there were a lot of problems surrounding it, either because they heard it on the news, or read about it.

I have been interested in what is going on in the sea, both with industry, with windmills, with fishing, with ... the pollution coming from the farms. We lived in the countryside for thirty years, so I have a natural interest for keeping the world a place to stay in. But the ocean, the sea... I think it has been very scary to see what is happening. You hear more and more about it, but still it is not a subject that. ... Before this, it didn't feel very much in the newspapers, in the public relations or around. - Kirsten

Two participant stated that they had seen the "decay" of the sea with their own eyes, which also motivated their participation to Vores Hav:

We talked on the phone [with Megaphone, the company that initially contacted the random citizens] and I said: "No, no, that has nothing to do with me. Call a biologist, a marine biologist. He knows a lot more of this than I do". But we agreed he would send some information and I read it and I thought: "No, that has nothing to do with me. There are a lot of other people who know a lot of things that I do not know". And when I was again, I was swimming, snorkeling, hoping to shoot a fish with my harpoon, I couldn't see anything. The visibility was one meter. And no fish. When I dove down, the bottom was green and there was a white layer of slime all over the bottom and no life at all. When I returned from this diving trip I read the invitation from Megaphone again and then I thought yeah, I know why it gets green. Because of nutrients in the water and then I thought yeah I have something to say. And I wrote an application to get on the *borgerpanel*, the panel, and got in. - Michael

Another participant had a similar experience:

I have always been a diver, so I dove especially in the north coast here and also in Morocco, and in my short, relatively short, period of time, I can see how the different species decreases, gets smaller. Not as much fish as normal. and that is pretty frightening, because it normally, when I think about pollution and it is on a long time span. but I can see the difference with my own eyes. and that worries me. - Lars

4.2 SUBJECTIVITY CHANGE

Before the CC, many of the participants already had some form of relationship to the sea, some even a “close” one. These relationships range from recreational, to being described as an important part of the participants’ daily life.

I will now get to the heart of the research and try to interpret whether the participants’ perception of the sea changed because of this process and if this translated into some kind of action. I start with a characteristic that is usually mentioned when talking about CCs and has been expressed by all the participants: the educational and awareness raising properties of this model. Next, the participants whose subjectivity changed positively, meaning that in their eyes the sea gained more importance, as well as the actions that derived from this. This first category contains all of the citizens except for one, though there are variations within that group. The outlier’s evolution was negative in the sense that, after the CC, he chose to cognitively and emotionally distance himself from the sea.

4.2.1 AWARENESS AS THE COMMON DENOMINATOR

As I have mentioned in the first section, the CC model is widely praised for its educational properties (Einsiedel & Eastlick, 2000; Chambers, 2003; Hendriks, 2005; Mayer et al., 1995; Rauschmayer & Wittmer, 2006) and this CC was no exception: all the participants felt they gained a lot of “knowledge” and awareness on the issues surrounding the sea.

I think something about this process really sticks with you. I have learned so much about the ocean, it’s crazy how much knowledge we got in just a few weeks. - Anne

One of the wishes of the participants, both expressed individually during the interviews as collectively in the final document, is that everyone in Denmark disposed of the same level of knowledge, because they felt that if this knowledge was more widespread, the problems would quickly be dealt with.

If everybody in Denmark, or in Europe, knew what we know now, then the sea would get better, immediately. - Michael

As I will discuss later on, this wish to spread the knowledge they acquired influenced some of the participants actions.

In addition, those that claimed they already knew a lot about the sea confirmed (some of) their thoughts and appreciated this newly acquired scientific knowledge to back their opinions in debates, like Anne:

I think it was very much aligned with the things I already thought about the sea. Obviously I learned a lot of new things. ... It's nice to be able to debate the subject out and about. And when people have comments about the ocean it's nice to say: "This scientist told me" or: "This project says this or the research says". It's nice to be able to back up your arguments with actual facts. - Anne

Or for personal enlightenment, like Kirsten:

I had my opinions before but I got more knowledge about my opinions, more background about my opinions. - Kirsten

This newly acquired scientific knowledge was appreciated by many participants, but also entailed some negative feelings with others, like Lars:

I have always studied a lot because it was in my interest so I have learned to read much about it [the sea] and keep me updated. So for me, many of the other participants were not up to date with what happened, but I was. The things that they taught us were just more devastating than I thought. - Lars

This feeling of having gained "so much knowledge" but not being able to do something with it, was described as a curse by one of the participants:

The best thing about this CC was getting all the answers [to our questions]. It was a relief in some way. But also, now we have a knowledge that is so big, and we know what is wrong with the sea and what could be better. And it feels like a curse. We run with all this, we know what to do. But nobody else knows. - Michael

Or in a similar way:

Like, you know, there are so many problems. It was sort of overwhelming sometimes because standing there and knowing all that and not really being able to just fix it like that is really difficult.
- Gitte

To get back to the cognitive part of ES, this “newly acquired knowledge” already changed the participants’ perspectives to some extent. When asked whether the CC had changed her perspective of the sea, Kirsten answered:

Yes! Very much! The first weekend I thought: “Wow there are a lot of things I do not know, there is a lot I do not know. We had some experts coming over and we were fourteen different people, with fourteen different opinions, but we had a great interest in the sea. So there were a lot of different angles coming in. - Kirsten

But this does not necessarily translate to “a conceptual category that organizes some of their thinking” (Agrawal, 2005, p. 165). In the next section I will analyze how the participants’ perception of the sea changed beyond the acquisition of scientific knowledge.

4.2.2 A CONCEPTUAL CATEGORY THAT ORIENTS SOME OF THEIR THINKING...

The majority of the participants, eight out of nine, felt their perception of the sea had changed beyond its educational process. I will start my examination here.

For all but one participant, this process increased their perceived importance of the sea, which fits Agrawal’s description of “a conceptual category that orients some of their thinking”.

One participant shared that he became more keen about the sea, and tried to understand the problems he encountered at the beach based on the things he learned on the panel:

For example, I found some dead fish on the beaches and I asked myself: “Okay why did they die? What have they done here?”. Maybe it is quite natural, but I do not know, it made me start thinking. If the water has a suspicious color, I think: “What the hell is going on here? Is there any places where they pour dirty water into the sea?” So yes I think I have become more keen about the sea. - Peter

For those who already considered the sea as an important element in their lives, the CC confirmed this. For instance, one participant stated that the process enforced the feeling of importance she had before the CC, even though she stated in the beginning that the panel did not change her perception or behavior:

Because of the conference, I thought it [a sea-related project she was working on after the CC] was even more interesting, or more important or whatever. It sharpened my awareness of what's important. - Mette

For the conceptual or cognitive part of Agrawal's definition, the CC had a "positive" impact on almost all of the participants. Additionally, as I will examine in the next section, they mentioned varying degrees of change in their behavior.

4.2.2 ... A DOMAIN TO WHICH THEY PERFORM SOME OF THEIR ACTIONS

Different types and intensities were mentioned for the actions that derived from this changing perception. I grouped the actions in two categories: the *individual actions* and the *collective actions*. By *individual* I refer to the actions the participants took on a personal level. On the other hand, the "spirit of the group" lives on for many of the participants. They went through this process, wrote their final recommendations together and many of them have stated that they would like to continue their work as a group, or at least collectively discuss different developments, ideas and plans. The actions related to the group as a whole is what I call *collective action or work*.

In the next section I will examine that some of the participants are very proactive in trying to get the group together and create the opportunity to continue their work. I refer to those participants as the *pullers* of the group. Others like the idea of continuing working together but do not take an active role in orchestrating this. I call them the *followers*.

Individual action

I start by looking at the individual actions. These actions vary in form, intensity, duration, etc. An overview is presented in Figure 3.

The most common action mentioned on an individual level I call "trying to spread the knowledge". As previously stated, many of the participants felt that if everyone knew what they knew, the problems

surrounding the marine environment would quickly be solved. Different ways of achieving this were mentioned in the interviews.

Five participants said they talked about their experience on the CC and the things they had learned on the panel with their friends, family and neighbors. For most of them this is in line with the bottom-up approach that they brought up in their interviews, meaning they believe small actions can have an impact in the end, like talking to their network.

Of course I told everybody I met about it, everyone who was interested of course. And it has been read and discussed by many of our friends. ... Many drops makes a big stream. - Kirsten

Another participant said:

I hope that if we, the participants, could see themself (sic) as some kind of ambassador then we might be able to have an impact on our local societies and the people we interact with. ... All these small kinds of things could actually change things and I see that if you talk about it then people change their behavior. ... It's very difficult to make big changes and how you go about it, but I also think many small things, can have an impact. - Mette

Beyond their own network and also utilizing a bottom-up approach, some participants made an effort to bring this knowledge to a wider audience. Two of the citizens participated in a tv debate, though not out of own initiative but orchestrated by the organizers of the panel as part of their task to get media coverage. One particularly pro-active participant agreed to give a presentation about the sea in a school, more on this below.

Figure 3 - Types of actions resulting from the consensus conference

	INDIVIDUAL ACTION							COLLECTIVE ACTION	
	Talk surroundings	Interpellation of politician	Pick up trash at the beach	Sea related media	Stop eating fish	Choice of internship	Puller	Follower	
Michael	X			X			X		
Kirsten	X	(X)		X				X	
Jens			X					X	
Camilla		X		X			X		
Gitte	X				X			X	
Peter				X				(X)	
Mette	X			X			X*		
Anne			(X)			X		X	
Lars									

Note. The * indicate some nuance or difficulty that is explained in the text. The parenthesis indicate an intention to do something, but no real action at the moment of the interview.

In a more top-down approach, two participants mentioned that the upcoming elections would provide the opportunity to call on local politicians about their stance on marine politics in public hearings. One wrote an email with specific sea-related actions the politician could and should take on in his program.

So I got a hold of this politician and I wrote him a few emails and I gave him our stuff and then he was supposed to hold a speech and it was like a typical politician speech: “We have to take care”, but he never came to what would you do. So I actually gave him five bullets of what he could have done. - Camilla

In the end, she was not successful in getting these points integrated into the politician’s program, but was invited to the stage at a public hearing to talk about the CC.

Other actions were mentioned alongside the efforts and intentions to sensitize the wider population to the things they had learned. One participant, who said she already tried to live “environmentally consciously” before the CC, changed her pescetarian diet to an entirely vegetarian one after the CC. Though she “always knew it [overfishing] was problematic”, the panel made it even more salient:

I think the participation definitely also highlighted for me the problem with overfishing, for example. For me, personally, it changed how I viewed fish as a meal. I do not eat fish anymore. It really highlighted some of these problems related to fishing. - Gitte

Another participant noted that since the CC, he has been picking up trash whenever he goes to the beach. Similarly, another said that though she already had this habit of picking up trash at the beach, the CC inclined her to do it more often:

Now I am even more inclined to do so [do “little things” like recycling, picking up trash,...]. If I’m out sailing for instance, if I see a piece of plastic, I’ll pick it up. - Anne

One of the participants was influenced by the CC in her choice of internship: she deliberately chose a project on an island hoping she could bring in her experience from the conference.

Lastly, a few of them mentioned that they became more attentive to sea-related news.

I read everything, every time politicians pass something about the environment, specifically the sea, I read it. Sometimes I get very angry, and sometimes I think: “Ah, at least they’re doing something”. I am never quite content with what they do. They ought to do better. - Peter

Another participant similarly stated:

Yeah I’ve been following what has been going on since I started at the consensus [conference], also because we [in Denmark] have this new ocean plan coming up, which is the subject of a hearing. And I’ve been following that and attending the meetings and - Camilla

The CC had influence on the behavior of many of the participants. This influence and its consequences varied widely, from very personal actions, to more public ones or actions that affected other people, strangers and friends alike.

Collective action - the followers

These actions, ranging from paying more attention to sea-related news, to talking about the CC with other people, to stop eating fish and picking up trash and choice of internship are individual and personal. Most participants also talked about keeping on working as a group and trying to collectively spread the things they had learned, as previously mentioned. However, five participants mentioned it in a rather passive way, meaning that they would be willing to continue their mission of spreading the knowledge they acquired *if* the opportunity presented itself. As I have mentioned before, they are who I call the *followers*.

I know that other things we really, also as a group, still find extremely important are to get this knowledge out to the general population. We were obviously given this amazing knowledge, but how do we make other people realize that we have to take action and improve the way of treating the ocean? And it’s still something that you know I sort of work with, although the group is currently not [that engaged] because of the pandemic. I know that certain parts of our group are still doing a lot. - Gitte

Similarly, another participants said:

Those of the members were also planning to meet. Of course it is a bit difficult with no-one supervising it. And then we would have our own closure I guess. And maybe some continuing work

plans later on. ... We have a lot of ideas, especially those of us who have been talking but it is difficult to see where to start and where to get the financial support and so on. But it could be as simple as making small videos to pass on the messages. That could be fine for me. - Jens

Another example of this approach:

I got a phone call recently from one of the participants, Michael, you probably talked to him, who just wanted to make sure that I still wanted to be part of the group in case we wanted to move forward and represent the people's voice regarding the ocean. I said: "Of course". So yeah we still have some kind of connection I think there is something in the pipeline. I do not have the hands on it, but they know that I'm part of it, that I want to be part of it moving forward. - Anne

Now, here is some ambiguity: except for the three participants that are actively trying to create this opportunity to work as a group, this opportunity has not yet presented itself. So there is no way of telling if, how and how many of the others would actually participate; where the intention stops and the action begins. It is possible that these statements come from a real intention and desire, but it could also be related to socially desirable responding (Mortelmans, 2013).

Possible explanations for this more "passive" attitude is that some of them doubt if they will be able to have an impact, on politics or on society more generally:

I hope to meet those people again, I spent such an amazing time with them. I do not think our meeting will make us go further with this work. I hope, but I am not sure. But at least we can come together once again. - Peter

Similarly, another participant stated:

The goal was just to make our voices heard in a debate where the voices of the powerful people, the industry and the politicians and getting all the votes and stuff is a big thing. Just to shout out and say "Hey we are people who care about this and wanted to do it this way maybe you could hear our voices as well". I am not sure if we achieved that though, sadly. ... I think it really has to come from within the powerful people in government. There has to be a will otherwise, because I cannot sign the papers and money is such a big factor and I understand why of course. The priorities in

government have to shift for it to actually be changed and I do not know what it takes to do that. –

Anne

Collective action - the pullers

I will now direct my attention to those three participants, Michael, Camilla and Mette, who are pulling the group and trying to create the opportunity to continue their collective work. This effort mainly consists of three things: the communication towards the other participants; trying to find funding to cover the logistical costs of getting this geographically scattered group together; and lastly finding a stage or medium through which they can spread their messages by contacting several organizations and experts. The three pullers meet up regularly to discuss how to go about this.

That [the final document] was delivered in March and from that point on, our group was dissolved. We are no longer the consensus conference borgerteam. We think it is sad. So Camilla, Mette and I have been talking and decided we three wanted to see if the rest of the group was agreeing that this does not have to stop. And everybody in the group, all fourteen have agreed that we want to continue. The Borgerpanel Vores Hav, version 2.0 is going to continue. We wanted to meet in person, also to say thank you for this time, for the project we already made and we wanted to throw new balls in the air and see what it catches by others. Which way are we going now? What do we decide we are going to do? - Michael

I will now take a closer look at two of these pullers, because, after the CC, they became very proactive in trying to protect the sea, through both their collective and individual work. Much like Agrawal's description their position towards the sea changed from quite a passive one to one of eager protection. As opposed to Agrawal's subjects, they both had a form of ES. Given the fundamentally different context in which Agrawal developed his framework, this difference does not come as a surprise. Both of them described their connection to the sea prior to the CC as close, but mainly in a recreational way (by mentioning scuba diving for instance). In geographical way, because they live close to it and a general interest in learning more about the sea. But through their participation in the CC the sea became a lot more important to them, driving them to take action, to try and solve the problems that surround it.

It has turned my focus. It is like a little baby that gets hurt. You just feel like you want to hug it and help it. But also frustrating because it needs so much help from so many people. And we are not many. We are just a little group and we want to share this knowledge with as many people as possible as we see that as the best thing that can happen for the sea. – Michael

Camilla, wanted continue this work since they hadn't achieve their goal yet:

I hated the thought that we were a project. Because it didn't feel like a project at all. I felt we did this work and there is no way that you could say okay it is over now, we have to continue now! At least consolidate what we have been working on, so actually that's the point where we are at now. We need to consolidate it more. ... We do not feel like a project, I mean how could they say: "Okay now it's over bye, thank you" and leave us there, and we are like: "Hey no no you can not do that, we need to continue". - Camilla

The similarity to Agrawal's case relies on this newfound fondness and responsibility of the environment, much like some members of Kumaon's forest councils. Evidently, this changing attitude took a different form for these two participants of Vores Hav than the people in Kumaon Agrawal describes. For the latter, they could express their position and act through these decision-making forest councils. For Michael and Camilla, though they both felt they did have some kind of impact with the CC, they had to create the opportunity to have an impact themselves. This effort translated both in the collective work that I previously described and in an individual take on how to handle their "mission".

For Michael's, his take on "spreading the knowledge" is in a bottom-up approach, mainly by educating children on the sea.

I have agreed to make *fordhall*, which is what it is called when a person stands and talks for a crowd in a school telling about a project they have and lecture and so on. I have said to the group that it would be one of my favorite things. I speak a lot and I would be great if someone could kind of fund our project. To pay for transportation or something and put together a program and send it to all the schools. I know it is long term, it is a long way to take the school kids. But it is important that the kids get into the sea, feel the sea, and sees what we see and see what we know when they get there. Just do not get to the sea and throw their stuff in the sea. They are ambassadors and the more people we can show what we know, the better it is going to get. And if we take the kids and inspire the kids to get to the sea and take ownership of the sea, they would take their parents too. Someone has to drive them, and they are going to tell their parents about what they feel about the sea, and they are going to affect the parents too. So it is a long term journey, but it is also effective on shorter term because the parents are going to get some of the knowledge too. - Michael

Camilla, on the other hand, has a more top-down approach and tries to change things from an institutional point of view. As I previously described, she wrote to a politician during an electoral hearing and urged him to take on a “blue political agenda”, but instead got on an electoral stage and talked about Vores Hav and the message she wanted to convey.

As Segi (2013) put forward, Agrawal’s framework might be too narrow in considering participation in environmental monitoring and governance as *the* determining factor in developing ES. Segi argues that other factors of one’s social identity contribute to this development.

So looking back at my case: How come some participants became pro-active and others didn’t? I suggest that the participants’ personalities and personal background played an important role. Michael, as far as I could tell from the brief time we spent together, is a very energetic and entrepreneurial person. Directly acting on the things he finds important is part of his personality. As one of the other citizens said:

I know at least one person [is trying to continue the work]. You met Michael, he is the one. He is the one who never gives up. He will try at least. If we meet and I can participate in a new way, it’s hard to do, but... - Peter

Camilla, on the other hand, is trained and works in the sector of land management for a local municipality. So on a professional level, she is used to working within environmental politics:

I think it’s [her inclination to compromise rather than stick to ambitious or even radical opinions] because of my yearlong terms of knowing how to get things because I have actually been getting some rules changed on a governmental plan so I know what it takes. - Camilla

Drawing from the interview and from the time I spent with her afterwards, I also believe that her professional choices reflect a conviction that things *can* change:

I think my work from the political organization, you know trying to inspire politicians to do things differently and to change the rule if it is not a good rule or to see that somethings you might say no to one thing and then it’s good for this thing but then it’s actually not good for another thing, so to see it more in the context, all overhead, so to say. - Camilla

And a firm believe that those with a certain knowledge have a responsibility to the wider society:

Oh yeah and people have so much power when they have knowledge and some people do not spread it because then they are in charge, right ? I hate that, it's all over the place, every little corner, all over.
- Camilla

So I would argue that the CC was a nudge in the direction of becoming pro-active “ambassadors of the sea”, but not the only factor. It might have been more of a trigger for a behavior or perception these two participants were already prone to.

4.3 NEGATIVE CHANGE

In the previous sections I have discussed how the CC positively influenced most of the participants' subjectivity: in their perception of the sea's importance and in the actions that derived from this changed perception, whether small or big, whether individual or collective. However, there is one participant who is an exception. Interpreting his stance was more difficult because he himself struggled with it, which resulted in some contradictions.

He began with describing his relationship to the environment and the ocean as close and important to him. As previously mentioned, he had seen with his own eyes that the marine environment was degrading, which had frightened him and he developed the need for his voice to be heard. He explained that he wanted to seize this opportunity and “fight for the environment”, to go to this panel and convince potentially skeptic citizens of the importance of the environment and the sea:

I thought before we came there: “Okay (*stamps fist on the table*), I sharpened my knives, ready for battle”. Because I thought I was going down there to speak to people who do not think there is something wrong with the climate. ... I had to go down and fight for the environment, this was my chance. - Lars

But this is in stark contrast with the feelings of powerlessness and apathy he described later on. He said that he was aware of the “terrible things we do to the ocean”, which the CC came to confirm, and the inability of the political system to address this:

Many people go into politics with a clean heart and want to change, but then they go “Okay if I have to change it, I have to be in it” and then when they are in it, they realize there is nothing to do, so yeah. - Lars

Paradoxically, the knowledge he acquired during the CC, both on the problems and possible solutions, only made this frustration, that predated the CC, grow and he developed apathy as a defense mechanism:

If this can change and the politician know how it is, that farming in Denmark is the way biggest problem, then why the fuck does not anybody do something, fuck the farmer (sic) in Denmark, we are about to ... and then in a bigger [perspective]: what is Denmark ? Compared to Russia, compared to China ? And that makes me apathetic, (*bumps fist onto the table*) Okay it does not... yeah. - Lars

So he entered the CC in the hope, what he would later call “the illusion”, to be able to fight for the environment and get his voice heard. But even when given the opportunity to express “what Denmark feels” to the political decision-makers, even when the problems and solutions are known and presented, he felt nothing changed.

I do not feel fooled, but I feel a little bit fooled that I believed I could change something. ... No I am just sad that it didn't have the impact that in my illusion I believed it would have. - Lars

He concluded that “everyone has to pick their own battle” and that for him this was not one of them, though this conclusion really moved him.

I really want to do it [keep on working with the group], but I have my kids, my education, I have my work. So I find myself in a “Yes, let's do it” [mentality] but in reality I have to choose my battles, and I think my subconsciousness does it, because last time we had a meeting, and I think “Yeah yeah good thing” and then I get a notification when the meeting is ten minutes in. But if I really believed it could do something, I would be there ten minutes before. So yeah, unfortunately I do not believe in the power of it. If the Borgerpanel does not have more saying then I think it's ... not a waste of time, but I think it should be more ... important. - Lars

When I asked him what he associated with the ocean before the CC, he talked about freedom, and when asking if this had changed after the CC, he stuck to this idea of freedom, deliberately distancing himself from what he learned during the process.

In the end, the way the CC influenced the participants' ES has much to do with the participants' predispositions: Those who most believed they could make a change experienced the biggest evolution in ES and became the most pro-active in trying to protect the sea and the ocean. On the other hand, the participant who felt most frustrated and powerless even prior to the CC chose not to engage, not on a cognitive level nor on a behavioral one, with the subject. Much like Segi (2013), I conclude that there is more than one form of ES and that other factors played a role in determining its influence. As I have repeated on multiple occasions, the context of my case is very different to Agrawal's case and acknowledging this also means acknowledging the fact that the results will not be the same, but rather adapted to their specific context, as Segi also pointed out.

So, though there were quite some parallels to Agrawal's work, the differences in results have three possible explanations: First, as Segi (2013) seems to suggest, Agrawal's framework was too narrow in considering environmental practice as the only determinant factor for ES, and other factors might have played a role such as social identity (Segi, 2013), personality, background, etc. Second, the context in which my case was situated was too different to expect similar (not identical) changes in ES. And lastly, as opposed to what I argued earlier on, environmental mini-publics are too far removed from what Arun Agrawal (2005) has called "environmental monitoring and governance" to have a similar impact. I believe the most likely explanation is a combination of these three.

FURTHER RESEARCH

In addition to these insights, this research has opened some paths for possible research. Though many subjects and questions were brought up, both during the interviews and in my review of the literature, I will focus here on two that particularly sparked my interest: value pluralism and negotiation and inclusiveness and knowledge.

5.1 VALUE PLURALISM AND NEGOTIATION

Environmental values were implicitly inquired in this research as to set the broader context for understanding the participants' relationship with the sea. However, the data does not provide enough information to allow in depth analysis on the environmental values present in this process. But it did reveal some possible perspectives for further research.

As I have mentioned on multiple occasions, Smith (2003) argues environmental values are often incompatible and incommensurable, but that DD offers the possibility to thoroughly explore this plurality. He mentioned the CC as an interesting model for doing so. However, the data I collected raises some questions.

First of all, nearly all participants indicated that they thought "the environment was important", which partly motivated their participation. As I previously mentioned, this is in line with the findings of the Eurobarometer of the attitudes towards the environment of the general Danish population (European Commission, 2017). This shared importance is evidently related to the problem of self-selection: those interested in the topic are much more likely to accept the invitation, than those that do not find it interesting or important. Many participants expressed their surprise as to how quickly they could all come to an agreement. This is indeed surprising because though they all perceived the environment as important, they had their own angles, values and opinions. When I asked about if and how disagreements occurred during the process, nearly all participants referred to one incident I previously mentioned, where one participant felt isolated in her opinions and values.

So, within this notion of importance attributed to the environment, there was (some form of) value pluralism but overall not to the extent that agreement was difficult or impossible to reach. But what about the opinions outside of this category? What about those Danes that do not think the environment is a priority? The climate skeptics? If the intention of the selection procedure is to "represent the different opinions present in society", how come this point of view is absent? Again, someone who is not interested in the environment or does not see it as important is logically less likely to participate in process with that topic, but this undermines Smith' argument of value plurality and

raises the question if this panel, and possibly mini-publics in general, are as representative as they try be. Isn't there a risk of preaching for you own church if agreement is this easy to obtain? Further investigation on what (environmental) values are present in such a process is required to adequately answer these questions.

Related to this is the question of negotiation: if we follow Smith (2003) in his idea of an incommensurable and incompatible plurality of environmental values, then how can agreement, let alone consensus, be reached? How do these negotiations proceed?

I have found that different strategies exist in this process of negotiating preferences and values. In addition to defending their own position and (environmental) values, some citizens were driven by external expectations. For instance, some were actively trying to find the best way to formulate things to have the biggest impact on politicians. In the same line of thought, others avoided too radical statements, not because they didn't agree but because they felt it would not be accepted by the political system. This again puts the argument of value pluralism in peril: this attitude shows how some of these participants seemed more concerned with the impact and the interpretation of the politicians rather than the presence of their values in their recommendations.

Finally, and this is a bridge to the next section, does not this ability for negotiation hold the peril of favoring those of a certain socio-economical class, as Williams (2000) also pointed out?

5.2 INCLUSIVENESS AND KNOWLEDGE

Another, unsurprising point, is that of inclusiveness and knowledge.

Though the intention of a mini-public is to bring new (or rather overlooked) perspectives into policy-making, the centrality of scientific knowledge in the CC model is also questionable. The authority such knowledge can convey, especially in Western societies, can be intimidating and consequently discourage the citizens to bring their own, possibly divergent, perspective into the debate. As one of the participants stated:

The worst thing was that we knew nothing. We had a lot of "this could be a problem", "is this a problem", "this we could see also", but we knew nothing and we didn't feel suited to ask questions that were good enough. We were afraid to ask stupid questions. That was the worst thing. We had a lot of self-respect and didn't want to act as amateurs. - Michael

This fear of “acting like amateurs” led to the participants feeling they could not freely share their perceptions if they didn’t line up with what the experts had told them. Even though they all assured me they felt they could speak their mind, scientific knowledge seems to remain central and omnipresent, possibly outweighing new or non-scientific input from the citizens. Instead of an transdisciplinary exchange of different types of knowledges and perspectives, it seems scientific knowledge maintains the upper hand, not only in the direct interaction with the experts, but also long after: during the interview, the acquisition of “new or scientific knowledge” and the (epistemic) authority that that conveyed was often mentioned.

Another related issue is that of accessibility. Many participants shared that the interaction with the 26 experts felt “enlightening”, but was this input understandable to all? A good expert does not necessarily make a good pedagogue and the ability to present and/or translate their knowledge and points of view in an accessible way remains to be seen. Two participants mentioned that one of the citizens didn’t seem to really grasp the issues presented, “He seemed outside of it”. The explanation given was linked to the degree of education:

He was the only one that was, in my opinion, far off. He didn’t have a clue about what was happening. He was not educated, and that is fine for me. But he wasn’t educated about the subjects and he had that feeling like: “Aah it probably isn’t that bad, they always make it sound worse”. - Lars

If the information provided wasn’t accessible to all, especially people with a lower degree of education, this entails a huge strain on the democratic principle at the core of the mini-publics: bringing in “lay” citizens with no prior education in the matter to give their “uninterested” perspective in policy-making. And also possibly would create power relations between the participants that did understand and integrated this information and those that didn’t.

This question is also relevant with regards to the writing process. The fact that the citizens write their report and recommendations themselves is one of the characteristics specific to the CC model. It has its advantages: It allows the citizens to formulate their own thoughts and prevents the organizers from manipulating the results or being accused of this. But on the other hand, writing such a formal document, directed at politicians, surely is not within the capabilities of all citizens. Some stated that due to their professional careers they were really used to condensing information and writing formal reports, but others indicated finding this really difficult. This asymmetry in competences might, again, create power relations, which is one of the problems DD seeks to address.

So it seems that challenges to assure inclusivity remain very relevant. In the selection process that inevitably attracts some people, read: people with higher education and are interested in the subject, more than others; in the interactions with experts and in the writing process. This, again, requires further research and should be at the heart of the organization of every deliberative process.

CONCLUSION

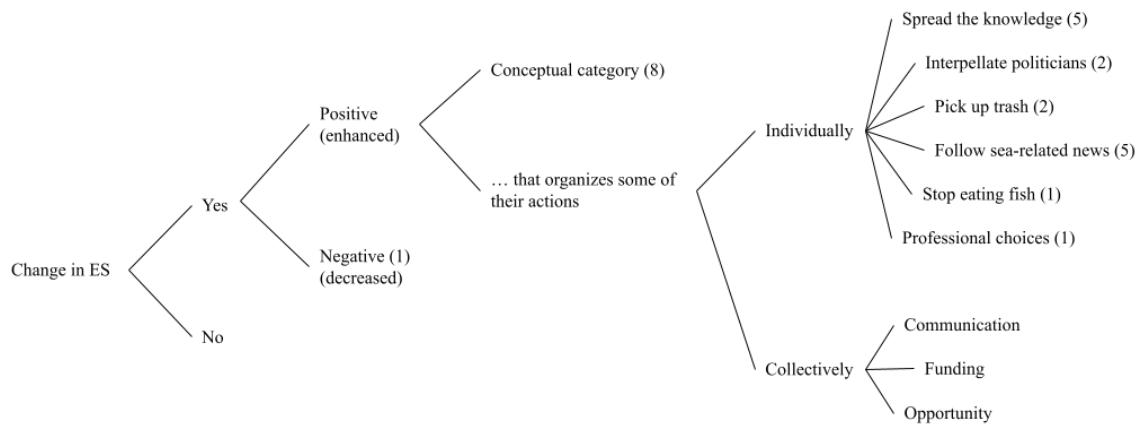
I have used Agrawal's framework to assess how the ES of citizens that participated in an environmental mini-public has changed. According to Agrawal, ES has two components, a cognitive one and a behavioral one: "The environment constitutes for them a conceptual category that organizes some of their thinking. ... It is also a domain in conscious relation to which they perform some of their actions" (pp. 164-165).

As I have previously argued, Agrawal's case is in many ways different to mine: set in the global South, Kumaon's forest councils were permanent decision bodies with actual clout over a forest in direct proximity to its members. Vores Hav on the other hand, is a temporary deliberative panel set in the global North, assembling a "divers" group of citizens that debated on a subject they had no direct interest in and whose impact is unknown.

The hermeneutic interpretive approach allowed me to get an in depth understanding of what this process did to the participants' ES. Because the environment is a very present topic in Denmark and given that all participants stated their interest and the importance they attached to the environment, I argue that they already had some form of ES prior to their experience in the CC. The environment already constituted a conceptual category, which partly motivated their participation. This is in line with the first part of my hypothesis: the mini-public did not create the ES of the participants, since they already had some form of it prior to their participation.

Through the various information they received during this panel they all felt they gained awareness on the issues surrounding the sea. For nearly all participants this experience enhanced the importance they attributed to the sea, consequently reinforcing the "conceptual category that organizes some of their thinking". This change in consciousness also translated into action, consequently confirming the second part of my hypothesis: that through their participation, the ES of the citizens was enhanced to the point where it influenced their perception and behavior. How this behavior changed varied widely: from paying more attention to sea-related news to getting on a stage to talk about their work (see Figure 4). Two of them became particularly pro-active in trying to save or protect the sea, very much like some of the subjects Agrawal describes. Many stated the *intention* to continue working as a group and two of them actively tried to make this happen. If, how and when this work will be carried out remains to be seen.

Figure 4 -Overview of change in environmental subjectvarying ivity



For one participant the feeling of powerlessness and frustration caused a backward movement, driving him to deliberately distance himself from the things he learned and once wanted to change.

Overall, I conclude that the participation in an environmental mini-public did have a positive influence on most of the participants' ES, but that this influence varied widely, both in intensity and in form. Other factors, such as one's personality and feelings towards environmental issues and politics, were decisive in determining how and why the participants' subjectivity changed.

Lastly, this research has opened up possible paths for further research. Firstly, what environmental values are represented in a deliberative process and if or how value plurality is achieved and how these are negotiated, along with other external factors that might influence the deliberation. And finally, both in the interest of science and for practitioners, if such processes are truly inclusive, both in the recruitment and in the way of presenting information and knowledge, as well as possibilities to overcome these fundamental problems.

BIBLIOGRAPHY

- Agrawal, A. (2005). *Environmentality- Technologies of Government and the Making of Subjects*. Duke University Press.
- Baber, W., & Bartlett, R. (2018). Deliberative Democracy and the Environment. In A. Bächtiger, J. S. Dryzek, J. Mansbridge, & M. Warren (Eds.), *The Oxford Handbook of Deliberative Democracy* (pp. 754–767). Oxford University Press.
<https://doi.org/10.1093/oxfordhb/9780198747369.013.59>
- Bächtiger, A., Dryzek, J. S., Mansbridge, J., & Warren, M. (2018). Deliberative Democracy: An Introduction. In A. Bächtiger, J. S. Dryzek, J. Mansbridge, & M. Warren (Eds.), *The Oxford handbook of Deliberative Democracy* (pp. 1–32). Oxford University Press.
<https://doi.org/10.1002/j.1662-6370.2007.tb00086.x>
- Button, M., & Ryfe, D. M. (2005). What Can We Learn from the Practice of Deliberative Democracy? In J. Gastil & P. Levine, *The Deliberative Democracy Handbook: Strategies for Effective Civic Engagement in the Twenty-First Century* (pp. 20–34). Jossey-Bass.
- Chacko, E. (2004). Positionality and Praxis: Fieldwork Experiences in Rural India. *Singapore Journal of Tropical Geography*, 25(1), 51–63. <https://doi.org/10.1111/j.0129-7619.2004.00172.x>
- Chambers, S. (2003). Deliberative Democracy Theory. *Annual Review of Political Science*, 6(1), 307–326. <https://doi.org/10.1146/annurev.polisci.6.121901.085538>
- Chapin III, F. S., Pickett, S.T.A., Power, M., Jackson, R., Carter, D., & Duke, C. (2011). Earth stewardship: A strategy for social-ecological transformation to reverse planetary degradation. *Journal of Environmental Studies and Sciences*, 1, 44-53. <https://doi.org/10.1007/S13412-011-0010-7>

- Dryzek, J. S., & Tucker, A. (2008). Deliberative Innovation to Different Effect: Consensus Conferences in Denmark, France, and the United States. *Public Administration Review*, 68(5), 864–876.
<http://www.jstor.org/stable/25145674>
- Debaise, D. (2017). *Nature as Event. The Lure of the Possible*. Duke University Press.
- Einsiedel, E. F., & Eastlick, D. L. (2000). Consensus Conferences as Deliberative Democracy—A Communications Perspective. *Science Communication*, 21(4), 323–343.
<https://doi.org/10.1177/1075547000021004001>
- Elstub, S. (2021, August 11). Climate Assemblies and the Climate Crisis. *Political Studies Association Blog*. <https://www.psa.ac.uk/psa/news/climate-assemblies-and-climate-crisis>
- European Commission. (2017). *Attitudes of European citizens towards the environment* (Special Eurobarometer 468 No. 2156/468).
<https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=72446>
- Folke, C., Biggs, R., Norström, A. V., Reyers, B., & Rockström, J. (2016). Social-ecological resilience and biosphere-based sustainability science. *Ecology and Society*, 21(3), Article 41.
<https://doi.org/10.5751/ES-08748-210341>
- Ghimire, R., Anbar, N., & Chhetri, N. B. (2021). The Impact of Public Deliberation on Climate Change Opinions Among U.S. Citizens. *Frontiers in Political Science*, 3, 1–10.
<https://doi.org/10.3389/fpos.2021.606829>
- Grosfoguel, R. (2020). Epistemic Extractivism—A Dialogue with Albert Acosta, Leanne Betasamosake Simpson, and Silvia Rivera Cusicanqui. In B. De Souza Santos & M. P. Meneses (Eds.), *Knowledges Born in the Struggle—Constructing the Epistemologies of the Global South*. Routledge.
- Hendriks, C. M. (2005). Consensus Conference and Planning Cells: Lay Citizen Deliberations. In J. Gastil & P. Levine, *The Deliberative Democracy Handbook—Strategies for Effective Civic Engagement in the 21st Century* (pp. 80–110). Jossey-Bass.

- Himmelroos, S., & Christensen, H. S. (2014). Deliberation and Opinion Change: Evidence from a Deliberative Mini-public in Finland. *Scandinavian Political Studies*, 37(1), 41–60. <https://doi.org/10.1111/1467-9477.12013>
- Horn, L. (2004). The Implications of the Concept of Common Concern of a Human Kind on a Human Right to a Healthy Environment. *Macquarie Journal of International and Comparative Environmental Law*, 1(2), 233–269. <https://www.ecologyandsociety.org/vol21/iss3/art41/>
- Joss, S. (1998). Danish consensus conferences as a model of participatory technology assessment: An impact study of consensus conferences on Danish Parliament and Danish public debate. *Science and Public Policy*, 25(1), 2–22. <https://doi.org/10.1093/spp/25.1.2>
- Kemp, D. (2005). Environment. In *The environment dictionary*. Routledge.
- Lafont, C. (2015). Deliberation, Participation and Democratic Legitimacy: Should Deliberative Minipublics Shape Public Policy. *Journal of Political Philosophy*, 23, 40–63. <https://doi.org/10.1111/jopp.12031>
- Lázaro, M., Bortagaray, I., Trimble, M., & Zurbriggen, C. (2021). Citizen deliberation in the context of Uruguay's first National Water Plan. *Water Policy*, 23(3), 487–502. <https://doi.org/10.2166/wp.2021.199>
- Machin, A., & Smith, G. (2014). Ends, Means, Beginnings. *Ethical Perspectives*, 1, 47–72. <https://doi.org/10.2143/EP.21.1.3017286>
- Mayer, I., Vries, Y., & Geurts, J. L. A. (1995). Participation in a consensus conference. In S. Joss & J. Durant (Eds.), *Public Participation in Science: The Role of Consensus Conferences in Europe* (pp. 109–124). NMSI Trading Ltd.
- Meghji, A. (2021). *Decolonizing Sociology—An Introduction*. Polity Press.
- Mortelmans, D. (2013). *Handboek kwalitatieve onderzoeksmethoden* (4th ed.). Uitgeverij Acco.

- Mulgan, G. (2020, April 28). Can government think? A lecture on understanding government as a brain. <https://www.geoffmulgan.com/post/can-government-think-a-lecture-on-studying-government-as-a-brain>
- Nadège Compaoré, W. R. (2017). «Voici la jeune femme qui veut poser des questions»: Composer avec le genre et une positionnalité changeante durant l'enquête de terrain. *Études internationales*, 48(1), 105–116. <https://doi.org/10.7202/1042355ar>
- Niemeyer, S. (2011). The Emancipatory Effect of Deliberation: Empirical Lessons from Mini-Publics. *Politics & Society*, 39(1), 103–140. <https://doi.org/10.1177/0032329210395000>
- Niemeyer, S. (2013). Democracy and Climate Change: What Can Deliberative Democracy Contribute? *Australian Journal of Politics & History*, 59(3), 429–448. <https://doi.org/10.1111/ajph.12025>
- Oosterlynck, S., Loots, I., Vandermoere, F., Raeymaekers, P., Vandepitte, E., Kuyper, T., Coene, J., Morrens, B., Holemans, D., & Boost, D. (2019). Armoede en de ecologische kwestie : Het maatschappelijk schuldmodel en sociaalecologische uitdagingen als collectieve dilemma's. In J. Coene, P. Raeymaekers, B. Hubeau, S. Marchal, R. Remmen, & A. Van Haarlem (Eds.), *Armoede en sociale uitsluiting—Jaarboek 2019* (pp. 23-46). Uitgeverij Acco. <https://hdl.handle.net/10067/1644730151162165141>
- Preiser, R., Mancilla García, M., Hill, L., & Klein, L. (2021). Qualitative Content Analysis. In R. Biggs, A. Vos, R. Preiser, H. Clements, K. Maciejewski, & M. Schlüter (Eds.), *The Routledge Handbook of Research Methods for Social-Ecological Systems* (pp. 268-281). Routledge. <https://doi.org/10.4324/9781003021339>
- Rauschmayer, F., & Wittmer, H. (2006). Evaluating deliberative and analytical methods for the resolution of environmental conflicts. *Land Use Policy*, 23(1), 108–122. <https://doi.org/10.1016/j.landusepol.2004.08.011>

- Reid, K., Flowers, P., & Larkin, M. (2005). Exploring lived experience. *The Psychologist*, 18(1), 18-23.
- Sanoff, H. (2006). Multiple Views of Participatory Design. *Middle East Technical University Journal of the Faculty of Architecture*, 8(1), Article 7 . <https://doi.org/10.15368/focus.2011v8n1.1>.
- Schultz, L., West, S., Bourke, A. J., d'Armengol, L., Torrents, P., Hardardottir, H., Jansson, A., & Roldán, A. M. (2018). Learning to live with social-ecological complexity: An interpretive analysis of learning in 11 UNESCO Biosphere Reserves. *Global Environmental Change*, 50, 75–87. <https://doi.org/10.1016/j.gloenvcha.2018.03.001>
- Segi, S. (2013). The Making of Environmental Subjectivity in Managing Marine Protected Areas: A Case Study from Southeast Cebu. *Human Organization*, 72(4), 336-346. <https://doi.org/10.17730/humo.72.4.b34794j6u00m0545>
- Shingal, A., Karapinar, B., de Sépibus, J., Aerni, P., Matteotti, S., & Cottier, T. (2014). The Principle of Common Concern and Climate Change. *Archiv Des Völkerrechts*, 52(3), 293-324. <https://doi.org/10.1628/000389214X14186502494027>
- Smith, G. (2003). *Deliberative Democracy and the Environment*. Routledge.
- Smith, G. (2021). *Can democracy safeguard the future?* Polity Press.
- Smith, G., & Setälä, M. (2018). Mini-Publics and Deliberative Democracy. In A. Bächtiger, J. S. Dryzek, J. Mansbridge, & M. Warren (Eds.), *The Oxford Handbook of Deliberative Democracy* (pp. 300–314). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198747369.013.27>
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. SAGE.
- Teknologirådet - Danish Board of Technology. (2021). *Vores Hav—Konsensuskonference om det danske havmiljø* [Our Sea- Consensus Conference on the Danish Marine Environment]. https://voreshav.dk/app/uploads/2021/05/Endelig-rapport_Done.pdf

- Teknologirådet - Danish Board of Technology. (n.d.). *Consensus conference- our ocean*.
<https://tekno.dk/project/our-ocean/?lang=en>
- Tengö, M., Brondizio, E.S., Elmqvist, T., Malmer, P., & Spierenburg, M. (2014). Connecting Diverse Knowledge Systems for Enhanced Ecosystem Governance: The Multiple Evidence Base Approach. *AMBIO*, 43, 579–591. <https://doi.org/10.1007/s13280-014-0501-3>
- United Nations Framework Convention on Climate Change, June 20, 1992,
<https://unfccc.int/resource/docs/convkp/conveng.pdf>
- West, S. (2016). *Meaning and Action in Sustainability Science: Interpretive approaches for social-ecological systems research*. [Doctoral dissertation, Stockholm University]. <https://doi.org/10.13140/RG.2.2.32127.10406>.
- Williams, M. S. (2000). The Uneasy Alliance of Group Representation and Deliberative Democracy. In W. Kymlicka & W. Norman (Eds.), *Citizenship in Diverse Societies*. Oxford University Press.
- World Population Review. (n.d.). *Most Environmentally Friendly Countries 2022*. Retrieved January 8, 2022, from <https://worldpopulationreview.com/country-rankings/most-environmentally-friendly-countries>
- Zurita, L. (2006). Consensus conference method in environmental issues: Relevance and strengths. *Land Use Policy*, 23(1), 18–25. <https://doi.org/10.1016/j.landusepol.2004.09.002>

APPENDIX A

COMPOSITION OF THE PLANNING GROUP AND THE EXPERT PANEL OF VORES HAV

Planning group	
Bo Riemann	Professor Aarhus University
Camilla Zandersen	Senior researcher, Aarhus University
Troels Jacob Hegland	Associate Professor, Aalborg University
Anne Christine Brusendorf	Secretary General at the International Council for the Exploration of the Seas
Expert panel	
Peter Oksfeldt Enevoldsen	UN Intergovernmental Oceanographic Commission of UNESCO
Hanne Lyng Winter	Policy Advisor, Association for Gentle Coastal Fishing
Nicolaj Lindeborgh	Fish and Fish Welfare Advisor, Danish Society for the Protection of Animals
Mickey Gjerris	Associate Professor, Section for Consumption, Bioethics and Regulation, University of Copenhagen
Katarina Hovden	PhD student, Faculty of Law, University of Copenhagen
Katrine Nissen	Head of Unit, Ministry of Environment and Food
Thomas Kirk Sørensen	Section Head for Oceans & Wildlife, WWF
Bo Riemann	Professor, Department of Bioscience, University of Aarhus
Peter S. Lund	Biologist, Danish Fishermen's Association PO
Anna Rindorf	Professor, Head of Section for Ecosystem-based Management, DTU Aqua
Signe Munk	Member of Parliament, SF
Maria Skipper Schwenn,	Director of Safety, Environment and Maritime Research, Danish Shipowners
Anne Katrine Bjerregaard	Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping
Dorte Krause-Jensen	Professor, Department of Bioscience, Aarhus University
Katherine Richardson	Professor, Center for Macroecology, Evolution and Climate, University of

	Copenhagen
Therese Nissen	Nature and Environmental Policy Advisor, Danish Society for Nature Conservation
Phillipe Grandjean	Professor, Clinical Pharmacology, Pharmacy and Environmental Medicine, University of Southern Denmark
Martin Mørk Larsen	Senior Researcher, Department of Bioscience, Aarhus University
Peter Beha Pedersen	Founder & Chairman, Plastic Change
Nanna B. Hartmann	Senior Researcher, Department of Water and Environmental Technology, DTU Environment
Lisbeth Jess Plesner	Chief Consultant, Danish Aquaculture
Marie Østergaard	Senior Advisor, Agriculture & Food
Berit Hasler	Senior Researcher, Department of Environmental Sciences, Aarhus University
Stiig Markager	Professor, Department of Bioscience, Aarhus University
Jens Kjerulff Petersen	Professor, Department of Aquatic Resources, DTU Aqua
Brian Kronvang	Professor, Department of Bioscience, Aarhus University

APPENDIX B

SOCIO-DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF RESEARCH SAMPLE

Pseudonym	Gender	Age	Profession	Location
Anne	Female	26	Border controller	Copenhagen
Kirsten	Female	66	Retired bioanalyst	Varde
Peter	Male	76	Retired system programmer	Soborg
Camilla	Female	51	Head of secretariat	Lokken
Mette	Female	54	Independent strategy and concept designer	Soro
Michael	Male	47	Independent electronics mechanic	Gram
Gitte	Female	27	Social educator	Haderslev
Lars	Male	34	Head of institution	Graested
Jens	Male	23	Building design student	Aarhus

APPENDIX C

QUESTIONARY AND TOPIC LIST

Questions

Brief presentation of yourself

Was Vores Hav the **first time** you participated in a citizen panel?

Why did you participate?

Participated in **something else**?

When I say the **word 'environment'** what are the first things that come to your mind?

or: how would you describe you **relationship/ role** with the environment

Same for the **word sea** / what does the sea mean to you?

or: how would you describe you **relationship/ role** with the sea

How has your **perception** of the sea **changed** since the CC? What do you think of when you go to the sea today?

Which **aspects** discussed in the CC stick with you the most?

What did you **hope/expect to achieve** when agreeing to participating in the CC?

Do you follow **current developments** in national or international politics concerning the sea?

Do you recognize aspects discussed in the CC?

Do you agree with the decisions taken? Why?

Do you feel your recommendations influenced today's politics?

How would you describe the meeting with the politicians?

What do you think about the way environmental issues are handled today?

How do you think environmental/issues related to the sea should

Topic list

INTRO

Presentation

Participation

ENVIRONMENT

Perception & behavior

<-> environnement

<-> sea

+ Influence CC

POLITICS / OUTPUT

Current developments

CC in politics

Impact

Meeting politicians

Environmental politics

be handled? / if you were minister of the environment, how would you handle decision/policy making

general

THE PROCESS ITSELF

PROCESS

How do you **look back** on this experience ?

General

How would you **describe the discussion** between the participants?

DELIBERATION

How did you **feel** during these discussions?

Discussions

Did you feel comfortable with sharing your opinions?

Feelings

What did you think of **other's opinions**?

Were some participants more **influential** than others?

The other citizens

Were there disagreements

Influence

How were they resolved?

Disagreements

Which **aspects** of the CC did you find more interesting or **important** than others?

Interest/ important aspect

Do you feel they got the attention they deserved?

According to you, what are the **strengths** of the CC model?

CC

How do you think it could be optimized?

Strengths

Weaknesses

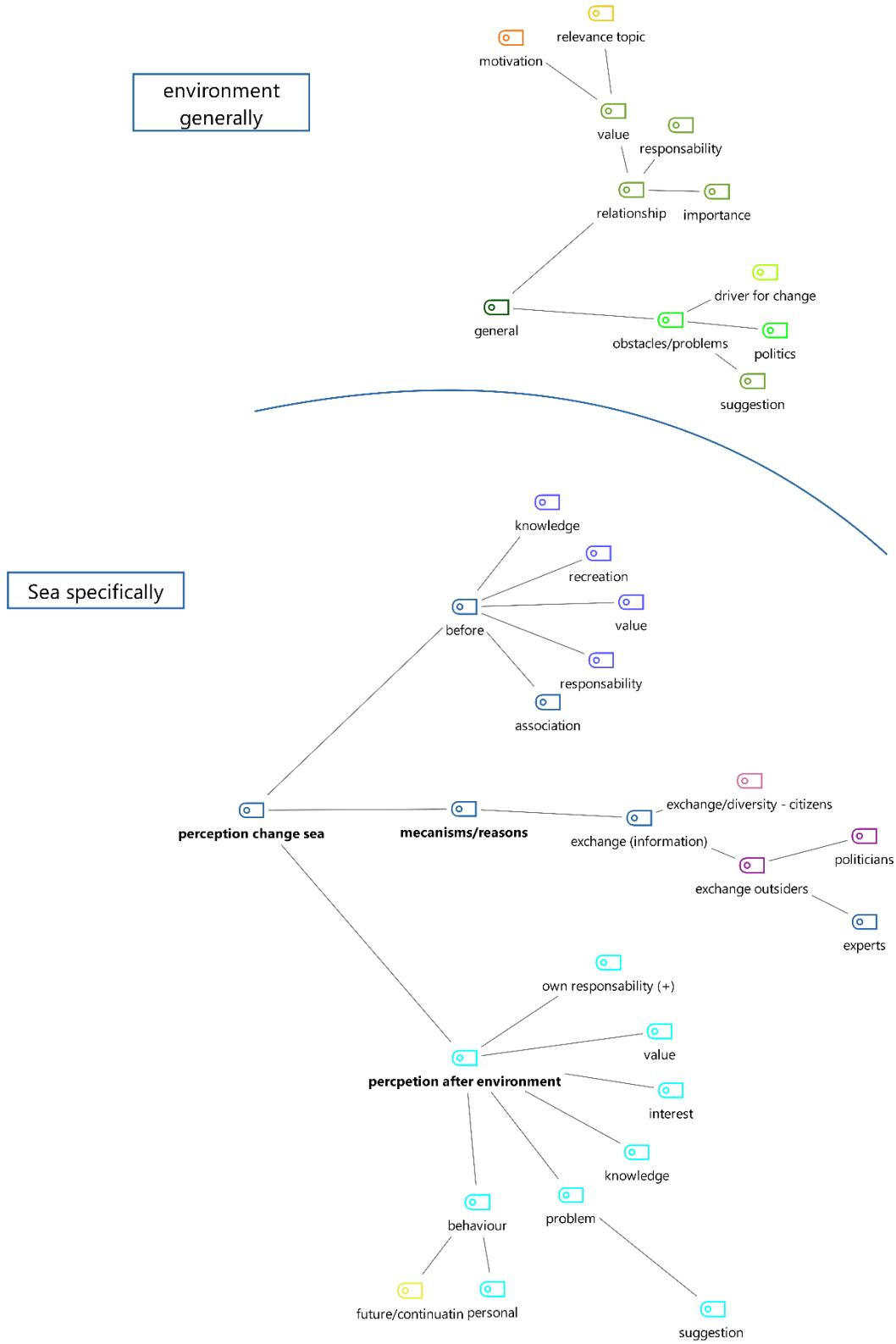
Is there something else you want to add? Are there things you would like to talk about that haven't come up yet?

Anything else?

APPENDIX D

CODING THEMES AND SUBTHEME

ENVIRONMENTAL SUBJECTIVITY



THE DELIBERATIVE PROCESS AND THE CC MODEL

