On the communication climate for communicating the climate

Challenges, possibilities and successes for public environmental communication in uncertain times

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Abstract

Environmental science concerns and confidence display an inverse correlation to societal progress on mitigating climate change and its effects: we know so much yet do so little. This gap can be correlated to opposing political interests and competing interests in the public as well as private domain. Despite or even especially because of this, environmental communication practitioners may hold an important role in linking research to policymakers and actors in political and general society. In this study, the findings of environmental research are complemented with observations of public environmental communication practitioners in Sweden, on what the communication climate looks like in adverse political and social climates. Using the analytical lens of social representations theory, the study found three major themes (audiences and actors; challenges and change; possibilities and successes) that are explored in their normative, cognitive, and affective dimensions. Disconnects between respondents' aims and results are discussed, as differences between normative and cognitive dimensions are discovered, and experienced successes are discussed alongside possibilities for environmental communication for positive climate change.

Keywords: Environmental communication, Climate communication, Environmental movement, Environmental politics, Environmental knowledge, Political context, Climate change, Communication

Table of contents

List of tables

1. Introduction

The writing of this thesis coincided with the release of the IPCC Assessment Report 2023, the sixth instalment in a series which has been ongoing for 33 years, created and released by environmental communicators of no insignificant proportion directed at governments, experts and policymakers globally. Despite all this, the latest issue echoes what previous iterations have suggested, with even greater assertion: "Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals (high confidence)" (p. 4, IPCC). But we need not look at the monumental efforts of the United Nations to see alarming reports - we can choose local for our troubles. Also alongside this writing, Sweden's Earth Overshoot Day dated April 3rd this year (Global Footprint Network, 2023) - the day when, if all countries of the world matched the consumption level of the selected country, the entirety of the earth's resources would be depleted. Reports on Sweden's environmental and climate goals, respectively, show the country's overwhelming lack of progress, where the majority of the goals have not been and are not expected to be reached if current trends persist (Climate Council, 2022; Swedish Environmental Protection Agency, 2023). While this text will focus on the Swedish context, the remaining world is not exempt: similar reports are produced globally (U.S. Global Change, 2022). While scientific confidence in and agreement on predictions for climate change have reached unprecedented heights, public and political attention on and interest in these seem uncertain and contested. We have traversed more than thirty years of the IPCC inventing even more eloquent ways of describing how we really, really, *really* need to do something sooner than now, which in itself motivates the communications' existence - it exists because it is needed, because crisis has not yet been averted.

But perhaps we could try another analytical lens to perceive it through. When alarming warnings are met with alarming inaction - as exemplified in global inabilities to meet set goals and criteria for progress - this inaction readily catches our attention, urging increased efforts. However, these efforts are rapidly drowned out by the many and competing powers of a greater society containing all manners of people and places, problems and priorities of more tangible and immediate nature than many of those concerning the complexities of climate change. That people should not have solved the wicked problems of global crises is, while unfortunate, perhaps not entirely surprising - indeed not much more surprising than not having solved inequalities, crime, or war, which are urgent issues alongside those of the environment. Attention might be brought to the fact that despite the complexities of the problems, despite the monumentalism of the challenges, and despite the throng of other perceived urgent issues and needs in the world, these reports are persistently being written. These studies are persistently being performed. And the global environmental movement persists through the shifting tides of societal and political fluctuations.

And for good reason. In Pew Research Center's global science report based on surveys and interviews across 20 countries, the majorities in most publics surveyed see climate change as a very serious problem, consider climate change to affect the areas where they live, and believe both that climate change is caused by human activity and that politicians are doing too little to reduce these effects. This tendency seems to persist over time; shares of seeing climate change as a serious problem had increased since 2010. While Sweden scored lower than average in "Climate change is affecting where they live", the country's scores were in majority for the other three categories (Pew Research Center, 2020).

However, when political leaning was taken into the consideration, larger gaps were observed. In Sweden's case, a decided difference was found in whether "Climate change is a very serious problem" between participants politically leaning left and right (75 and 44, respectively). Likewise, European supporters of right-wing populist parties show less concern about climate change and are less likely to believe politicians are doing too little to reduce the effects of human activity on climate change (p. 44, ibid.). Similar results have been found in multiple studies, where right-wing political ideologies tend to align with greater scepticism towards climate change (Kulin et al., 2021), as well as hostility towards climate and low-carbon energy policies (Lockwood & Lockwood, 2022). And also coinciding with the writing of this thesis, right-wing populist movement has increased in Europe in general and Sweden in particular.

Here we have a conundrum: while inhabitants all over the world seem concerned about and positive towards environmental efforts and climate mitigation, other societal factors compete with these interests. Perhaps the question should not be why environmental communication has not been effective enough, but rather how environmental communication can persist even in challenging environmental communication climates.

1.1. Research problem, aim and questions

While environmental communication is growing to be a vast discipline, and consistently attracting greater interest in the processes of how the environment is best communicated to the greater public (Moser, 2016), the personal perspectives and experiences of public environmental communication practitioners remain underexplored. In 2010, Jurin et al. published an environmental communication textbook with the motivation that scholars' duty is no longer only to scientific journals, but that information to the public is a critical part of their practice. A decade later, Akerlof et al. posit that scholarly attention within the practice of environmental communication has been overwhelmingly focused on journalism- and mass media; they instead draw attention to the benefits of improving understanding for non-governmental organisations' and federal agencies' role in the practice (2020). This study will place its entire attention on the environmental communication practitioners within non-governmental organisations and federal agencies, with focus on their personal perspectives on and experiences of their practice.

Boström (2001, 2004) has extensively studied the roles of environmental organisations and their meaning for the environmental movement; how they reflect and compensate each other - with different identities, organisational styles, approaches, methods, and meanings - but meet in mutual goals and are united in the common movement. This study places its attention on commonalities rather than the singularities, to explore what different organisations find to be common experiences, taking advantage of the unifying aspects in the diversity of organisations.

This study aims to yield greater insight into the perspectives of active environmental communication professionals, on what communicating global crises and enacting change entails through uncertain and sometimes unsupportive political and social climates. Through an increased understanding of the experience in the practice, specifically situated within organisations central in the environmental movement, we may learn about obstacles for effective social and political mobilisation for the environment, as well as concrete effective paths for the same.

The study will be guided by the following research questions:
- Q1: How do environmental communicators make sense of challenges and possibilities within their practice?
- Q2: What do environmental communicators identify as possibilities and successes within their organisations?
- Q3: How do the observations of environmental communication practitioners align with previous research findings?

1.2. Theoretical framework

Since this study aims to explore environmental communication practitioners' practices, beliefs, and values, it will be aided by the framework of social representation theory. Dubbed "The study of knowledge dissemination, of the relationship between thought and communication, and of the genesis of common sense" (p. 480, Rateau & Moliner, 2012), the concept was introduced by Serge Moscovici in 1973, as a way to make sense of the emergence and exchange of social representations. In their words, to make "representations into a bridge between individual and social spheres, by associating them with the perspective of a changing society" (p. 82, Moscovici, 1989). In practice, this perspective blurs the line between internal and external worlds of the studied, in how they reflect around, perform in, and communicate about their social environment. This is also applied to how shared knowledge within a social environment is produced and circulated (Buijs et al., 2012). Utilising social representation theory might assist in the understanding of people's or groups' action and inaction in a certain context, by making visible inconsistencies and contradictions relating to that context (Castro & Batel, 2008).

Adopting a combination of framing and social representations theory, Buijs et al. (2011) designed a formula of three dimensions - the normative, cognitive, and affective dimension (as inspired by Keulartz et al. of 2004) - to analyse the

interaction between values, beliefs, and emotions. The normative dimension pertains to what society ought to be, the cognitive dimension to what it is believed to currently be, and the affective dimension to which emotions are relevant to the phenomenon studied. What is interesting for analysis is both the separation and the interrelation between these three: both where they intersect and where they diverge, as this makes visible where inconsistencies and contradictions lie, as well as how they can be explained. The framework's role in the context of this study will be clarified further in the results section.

2. Method

This qualitative study has been performed by respondents' reflection through text, exploring public environmental communicators' perspectives on their practice, between the challenges and possibilities in the face of the global climate crises and varying social climates for tackling these.

Respondents were given 9 open-ended questions: 3 of which described the participant's role in the organisation, and 6 of which gave the opportunity to reflect on challenges, opportunities, possibilities, conditions, and successes within their practice. The respondents were asked to reflect openly through their text responses.

Method discussion

The method for this study was chosen as a compromise between face-to-face interviews and online surveys. In a pre-study trialling different research methods, a much greater participation rate was evident when there existed an option to answer an online survey, even in comparison to the option of participating in a digital (video-call) interview. As such, it was determined that a text-based, digital, impersonal approach was better suited for this context and these participants. To achieve the study aims, however, questions were kept more similar to those of interviews, albeit concretised to avoid semantic confusion which could have been heightened by the non-supervised form of data collection. The open text format allows the participants to freely reflect at their own leisure whilst documenting their experiences.

Some inspiration was found in Braun et al.s' vouching for digital text-based approaches, in the form of surveys. They cast aside the common assumptions that surveys would be lacking in depth, as they describe the method as underutilised and with a number of advantages for both practitioners and participants (Braun et al., 2020). In the research textbook by Robson and McCartan (4th edition, 2016), the primary disadvantages around digital surveys pertain to lack of internet access and accessibility for participants, alongside how "response bias is also a concern with highly educated computer-literate persons" (p. 253). With the rapidly and still-increasing usage of online-based everything, this is an issue which may need some revising. In this study, set in the digital landscape of Sweden of 2023, online surveys seem to be more accessible than their real-life counterparts. This accessibility aspect was apparent in the higher willingness to join surveys than interviews in this study. Still, the study borrowed from the interview format in designing the questions, to encourage richer and more in-depth responses.

It might be considered that due to the participants' everyday roles as communicators, in an often text-based and digital environment, it might have been especially attainable to put their perspectives into writing in this study, too.

Participants

The seven participants were selected from organisations identified as being prominent in environmental communication in Sweden. These were found via online searches for Swedish environmental organisations (particularly Natursidan, 2019) as well as by snowballing through participants' recommendations on other relevant organisations. Participants were then either chosen from available communication practitioners or recommended by personnel within these organisations, and contacted through email. One email was sent to invite the participants to the study, and a follow-up email was sent with a link to the online questionnaire after the invitation was accepted. Two responses were excluded due to submission past the deadline, but their respective organisations are represented through other participants from the same organisations.

Table 1: Organisations participating in the study

Name	Type	Alias
Jordens Vänner (Friends of the Earth Sweden)	The Swedish unit of the world's largest grassroots environmental federation	JV
Klimataktion	A national public movement association for the climate	KA
Naturskyddsföreningen	Sweden's biggest environmental organisation	SNF
Naturvårdsverket	The Swedish Environmental Protection Agency	NVV
Panorama	A communication platform by the Swedish Climate Policy Council, the Swedish Energy Agency, and the Swedish Environmental Protection Agency	PR
World Wildlife Fund (WWF Sweden)	The Swedish unit of the world's leading conservation organisation	WWF
Sveriges meteorologiska och hydrologiska institut (Sweden's Meteorogical and Hydrological Institute)	An expert agency in charge of producing forecasts for weather, wind, water, climate and environment	SMHI

Ethics

Each participant was informed of the conditions for participation in the initial invitation email - that they would represent their organisation in their role as communicators, approximately how long the questionnaire would take to fill out, the purpose of the study, and how the results would be used. The questionnaire was sent in a second email upon confirmation of participation.
The online questionnaire was fitted with an information page explaining the purpose of the study, the selection of participants and their roles in the study, how the data from the questionnaire would be used, and my contact details, noting that the participants could contact me at any time in any cases of uncertainties. On the same page was attached a consent form that had to be accepted to open the

questionnaire. On both this page and the questionnaire itself, the participants were reminded that they could at any time withdraw without explanation or motivation, and that answers would be anonymous and participants aliased. On the questionnaire itself was also an explanation of the concepts used and of the structure of the questions.

Explanation of words

"Environment" and "climate" are often used together to allow containment of all experiences that are pertaining to the often intersecting areas. In the data collection, this was explained and participants asked to respond according to which of the concepts best corresponded to their experience.
"Positive action" refers to all types of activities that aim to improve the environment and climate, including decreasing negative impact, from both private and public actors.

3. Results

The collected data was compiled into three categories of representation: audience(s) and actors, challenges and change, and possibilities and successes. The first contains findings relating to the themes of agency-holders who are both targets for the participants' communication and expected actors performing the contents of the communication - changemakers and progressive performers for improvements to the current state of society, climate and environment. Here, the term "audience" reflects participants' common description of their communication practice as more classically one-way, in speaking to an audience rather than having a two-way exchange with their target groups. This is to some extent contrasted in the third category, where more interactive approaches are discussed. The second category contains findings within the themes of challenges to change - deficiencies, disadvantages, and negatives that are perceived to be in contradiction to progress and positive change. The third category contains findings on the themes of previously experienced positive outcomes resulting from communication strategies as performed by the participants. These three representative categories all contain the three dimensions of social representation: the normative dimension, the cognitive dimension, and the affective dimension. The normative dimension pertains to participants' values and beliefs on what ought to be - which actors ought to be involved, what actions ought to be performed, why the situation is what it is and what ought to be done to change it. These values and beliefs were commonly found to be expressed in terms of wishes and hopes, as well as prompts and insistence. The cognitive dimension pertains to participants' understanding of the current situation - what the immediate reality is, in the experiences of the participants. The affective dimension pertains to the emotional aspects of the participants' communication practice - what emotions are perceived to be present in the different themes, and how emotions are considered on a meta communicational level.

Table 2: Categorisation of the normative, cognitive, and affective dimension of social representation of climate communication.

Representative category	Normative dimension	Cognitive dimension	Affective dimension
Audience(s) and actors	Companies play a prominent but hidden part Politicans ought to lead the way Individuals must do their part	Current audiences are commonly the general public and politicians Difficulties in reaching those who are not already engaged	Increased emotion is needed in the audience Negative feelings about change

	Youths and educators should be targeted	Education in schools is missing	
Challenges and change	Action requires strong leadership, inspirational figures Positives must be amplified Fear and hope must be balanced, as negatives may be deterring and positives reducing perception of threat(s)	Political forces are missing Knowledge is not enough for change Change is associated with risks, inconvenience, and cost Economy and money are missing from the picture	Fear Discomfort Stress Anxiety Feelings are vital in the process
Possibilities and successes	People can and should demand change Engaging individuals is fruitful Persuading politicians makes greater change Feelings are a vital foundation for effectiveness of communication People must know how to take action	Greatest results from communication efforts have been achieved through: ★ Courses and education ★ Face to face meetings ★ Media attention ★ Specific, directed campaigns ★ Visualisation	Hope Inspiration Engagement

3.1. To whom are we speaking - on social representation of communicating to the audience(s) and actors

3.1.1. Normative dimension

Though the questions were posed primarily in phrasings such as "how", "why" and "in what way" (while being open in form), most of the participants placed some emphasis on the "who" of both audiences and actors, both to their own communication and as greater agency-holders in society. A prevalent value shared between participants is the involvement of "everyone":

> "Everyone needs to take the leaf out of the mouth, and say it as it is, and look at which actions are most efficient and at the same time doable to get us all out of this crisis that we stand in front of as a collective." - SNF

In line with this, most participants refer to the value of engaging on multiple levels, rather than attempting to place the entirety of agency within any singular sphere - the "everyone" involves both public and private actors, groups and individuals. This, however, does not absolve the individual of focus, and the idea of the individual as central to communication is reflected across responses:

> "Be clear about what the receiver of the communication can do on their own to achieve the desirable effect. Avoid merely speaking of what "society" or some other collective needs to do, and engage the individual." - PR

As specified actors that ought to be engaged, the majority of the participants mention politicians, who are also included in the target audience of most. Politicians are repeatedly mentioned as central for inspiration, regulation, and engagement:

> "I want politicians to lead the way and show us visions of what the new society could be like; visions that show the future in a positive way." - KA

Some participants also mention youths and educators as vital target groups for communication and as agents of change. Values of possibilities for the future being tied to the younger generations seems hinted at in multiple responses:

> "Youths are a really important group, but of course that does not exclude others. It is not the responsibility of the young to solve the challenges, but they are an important group that can put pressure on decision makers and the general public." - WWF

as well as more openly stated:

> "There is not a great enough understanding that long term sustainable development is the schools' most important mission." - WWF

> "(We need) education about climate and environment in the schools, invest in the young, use their channels on social media." - SMHI

Underpinning many of the responses, too, is the notion that companies play a decisive yet under-developed part as actors against environmental decline and climate crises - they are mentioned briefly and elusively on the edges of responses throughout the study. An example of an understated yet apparent value is illustrated:

> "However, many companies have understood that it grants a positive competitive force to be at the front end of climate mitigation." - SMHI

3.1.2. Cognitive dimension

Despite the shared beliefs that companies, youths, and educators are all vital targets, nearly all participants refer to the general public and politicians as their primary audiences, and most of them as their only target audiences (see table 1, p. 11).

Two organisations mention youths as primary targets, one mentions educators, and one mentions companies as secondary targets for communication. Interestingly, companies are portrayed as actors and communicators - active, agency-holding, higher forces - rather than as audiences for communication:

> "Generally speaking, we see the entire capitalistic system as counteracting the change that is required, just through being what it is. We cannot buy ourselves closer to solving the climate crisis, and still it is constantly communicated from all directions that we are to fix this through pouring a lot of money into innovations and technology. I think that as a rule people are missing the obvious solutions that exist, such as for example saving energy (instead of finding ways to spend even more energy)." - JV

Similarly, while multiple participants mention education and youths as important pillars for the future, few seem to address educators directly in their communication:

> "And even if one does hold the belief [that long term sustainable development is the schools' most important mission, see WWF, p. 14], the educators do not have the competencies. Nor do people view education (both formal and informal) as an important tool for achieving the goal of reaching sustainable development." - WWF

While "everyone" is frequented as an important target audience for communication, in current reality multiple participants describe focusing on an "environmentally interested public" (SNF) and everyone "with some sort of climate- and justice engagement" (JV):

> "Our organisation, just like many others, may be struggling to reach those who are not already "enlightened" and convince those who are sceptical towards efforts for the environment and that human influence is altering the climate." - SMHI

3.1.3. Affective dimension

The responses show an interconnection between communication and emotion - that feelings must be inspired in the audience to rouse results, that a lack of emotion stagnates processes, and that emotion is called upon for use in the communications themselves:

> "Science has long since shown that knowledge is not enough for action. I think feeling is needed too, a deeper realisation, maybe fear, shock or similar to engage in real action." - SNF

> "I think communication that builds on joy, hope, pleasure and love for the earth has better chances of success. […] Both fear and pleasure are strong driving forces. Sadly, we do not feel the fear strongly enough to act yet, even in countries like Australia where people are currently and concretely suffering from both drought and floods." - KA

Another common perspective on emotions is that the audiences feel negatively towards changes, not least changes that might be necessary for tackling the climate crisis; that action might be hindered by negative presumptions that changes in lifestyles, habits, and other behaviours would compromise personal wellbeing:

> "In part, I also think that people do not have a clear image of the gains we can yield through changing, for example, our consumption pattern. What is primarily talked about is what we must give up and not what we gain. This makes people believe that a different behaviour means a worsening here and now." - WWF

3.2. Missing pieces - on social representation of challenges and change

3.2.1. Normative dimension

A common value expressed in the responses is the requirement for leadership to drive positive changes for the environment and climate:

> "My opinion is that leadership is important to both create legitimacy and to create conditions for positive action, through decisions that make a transition possible." - NVV

It echoes through the study in different suggestions for both a stronger institutional leadership and inspirational figures: "leaders for companies and organisations" (JV), "influencers" (WWF), "Greta Thunberg" (SNF), and through multiple responses a focus on "the government" (SNF) and "the politicians" (KA, SMHI, NVV, JV, SNF):

> "(We need) a broad political anchoring within all parties to drive ambitious climate politics and to put efforts wide and deep on climate adaptation." - SMHI

Connecting to the affective dimension of both the audiences and actors and the challenges and change, responses reflect the shared belief that communication must be a balancing act between fear and hope, negatives and positives - between "hope and despair" (WWF). While positives are generally considered important drivers by the participants, flags are raised for the risk that an overly positive approach reduces the perception of threat:

> "Even though we had talked about the state of things, at least my reflection when Greta became so big and famous was that we had not talked about it enough. The positive solutions-oriented communication had eclipsed the factually terrifying situation, which would also have been important to speak about more to reach people's cores, the feelings, which Greta succeeded so well in doing." - SNF

3.2.2. Cognitive dimension

Despite the common belief that strong political leadership is an important or even vital part of positive action against climate change, participants' highlight political forces as a lacking element in reality:

> "There is the problem today of short mandate periods and even shorter budget plans. It is difficult to make societal reforms that can demand big initial investments when [politicans] desire to be re-elected. A deficiency is that big climate adaptation projects are very costly and the effects of the adaptation might not be apparent until many years have passed. This generation is paying but the next generation gets to partake in the positive effects of their actions." - SMHI

> "When IPCC came with their latest report that was unbelievably clear and frightening, the government said nothing about it, which is another big problem, that our highest political

representatives are not treating the climate crisis as the crisis it really is. Then it becomes obscure that it actually needs a lot of actions, a great green societal reform, already within the coming decade and decades." - WWF

Additional complexities arise when the desired leaders actively avoid leadership, with reasons ranging from lack of agreement, to personal gain (wishes for re-election), to caution around instructing the greater society:

> "There is a currently ongoing discussion on whether we are to retain our Swedish climate goals or rephrase them. This creates an uncertainty that risks halting the adaptation." - PR

> "Generally speaking, politicians and leaders for companies and organisations are very afraid of communicating around how people should break their habits (I do not want to use the word comfort as I believe we have the possibility to have more comfortable lives if we for example consume less and use fewer resources)." - JV

In line with this, change is currently considered (by the audiences and actors) to be overly associated with risks, inconvenience, and cost:

> "Both politicians and the general public are probably living in the belief that climate adaptation is very costly and that you would have to give up quality of life if we are to reduce dangerous climate altering emissions and increase biodiversity. The political governance towards a climate adapted society needs to increase. [...] The majority of politicians and the general public seem to be of the opinion that actions connected to climate and environment risk intruding on what most people view as their right to the high standard of living we have in Sweden/the Western world today." - SMHI

However, multiple participants also posit that knowledge is not necessarily enough to trigger changes in behaviour or even attitudes:

> "The correlation between knowledge and action is not linear but affected by many different factors. Many examples within the behavioural sciences show, among other things, that social psychological factors impact people's attitudes and behaviours." - NVV

> "Sustainable development encompasses such big and complex issues and it takes not only factual knowledge but also knowledge about the complexity itself, knowledge about how AND the possibility to act. The average person has difficulty seeing the correlations and the bigger picture. Many also feel that "it does not matter what little old me does". The climate changes and the loss of biodiversity might not be noticed in each person's daily life (in our part of the world) either, and that makes it even more difficult to relate. On top of that, we are stuck in a culture and in ingrained patterns that are difficult to break (even if one "knows" what one should be doing). - WWF

At the very end of the questionnaire, when individual motivation and drive is discussed, multiple participants reflect that a primary motivational factor for the general public is "economical gain, sadly" (SMHI). Similarly, it is noted that drivers for positive change could be of the economical variety, as both a motivator and in some situations a prerequisite:

> "The driving forces behind the choice between public transport and driving individual cars to work could for example be a matter of economy." - NVV

Despite this, economy and money matters are missing from the picture; while sometimes subtextually implicated, it is visibly absent from reflections on

audiences, processes, interpretations, and plans, as well as largely absent from reflections on possibilities and solutions. This does to some extent connect to the absence of focus on companies previously mentioned - while implicitly interrelated, it seems to be forgotten on other levels.

3.2.3. Affective dimension

While many of the reflections on planning, organisation, communication and possibilities tend to centre around more practical, structural, political, and societal aspects of behaviour and cognition, feelings are a central theme for challenges. Discomfort, uncertainty, stress, fear, anxiety, denial, hopelessness and powerlessness are all prominent themes on challenges for positive action. Multiple participants refer to feelings as vital in many stages of the communication process, both to identify, acknowledge, and communicate with, but also as challenging to both consider in planning and properly address:

> "The challenge is to talk about the horrifying situation that can make many people scared. Another challenge is that there still are those who accuse you of being a so-called "alarmist", and a fair amount of people seem to listen to that sort of rhetoric. Yet another challenge is to get people to not be paralyzed by fear and scared of the situation and the fact that too little is happening, but to actually get to practical action." - SNF

Building on the theme of powerlessness, participants also identify challenging feelings regarding ability and self-efficacy; that people are uncertain of their own roles in and capacities for change:

> "I think many people are hindered from engagement due to low self-confidence, many people believe that they can do or know too little and think they do not fit into the movement. Here we need all climate engaged to help out to include and contribute to make people feel welcome, needed and appreciated. Very important with anti-racist and anti-colonial values here!" - JV

3.3. Sunshine stories - on social representation of possibilities and successes

3.3.1. Normative dimension

In participants' beliefs for possibilities for positive change, the focus rests primarily on youths, politicians, and the general public (see also section 3.1.1.). The need to engage individuals seems to underlie most participants' values, as here on where communication focus for change ought to be:

> "The close-to-home for the general public - the car, the beef, the home, and the wallet. Each and every one has great opportunities to change their own lifestyles." - SNF

Alongside and in combination with this, there is also the consistent attitude that persuading politicians makes greater change, as has been visible throughout the study:

> "[It is necessary] to get both politicians and the general public to realise that we have much to win through adapting our societies to be more in tune with nature and that it will in the end cost us much more to adjust to a changed climate, than what it does to decrease our emissions." - SMHI

And the two perspectives (often coexisting) meet in the common belief that people can and should demand change:

> "But it is also absolutely necessary for the general public to demand positive action from the politicians." - SNF

Another shared belief that has been present throughout the study, and further highlighted on the subject of possibilities, is how vital feelings are as a foundation for effectiveness of communication:

> "Feelings of different kinds, a feeling that this is necessary to do and also positive visions for the future of how it can benefit each and every one of us. For example, how greener food and taking one's bike instead of the car can promote personal health, can serve to increase motivation." - SNF

Bordering this, there is another strong point made in how people must know how they may take action for positive change, following said feeling, and the wider role it plays on larger scales:

> "Humans are to a great extent driven by the brain's reward system. The tendency is simply to do things that we experience as rewarding in the shape of pleasure or other forms of wellbeing. To motivate is thus about showing that there are rewards in doing a specific thing. For example, that you save money and get better health through taking the bike to work. It can also concern giving information that makes other individuals or organisations see the benefits in taking specific actions." - PR

While much of the focus in participants' reflections lie on individuals, some attention is also placed on the interactional possibilities between different individuals, and how communication and behaviours spread across group levels. Here, there may be greater possibilities for interactional effects, that may be missed with too slim of a focus on individuals, as described by one participant considering driving forces behind attitudes and behaviour:

> "To know how to and that one is able to act and affect, and also to be in a context where others think like oneself does." - WWF

This distinction as well as interrelation between personal and interpersonal behaviour is further illustrated by another participant, who also draws attention to the value of visual representations:

> "It could possibly be that when one sees personal connections one gets more motivated to act (for example if one understands that climate changes affects oneself personally). But I do not believe that humans are solely egotistically driven! I believe that people must show

concretely how things are connected, for example how a decision about something regarding the climate that is made here in Sweden can affect people in other countries. Concretely speaking I believe in images and stories with clear narratives and quality esthetics. One must be clear and concise, and perhaps more than anything honest." - JV

3.3.2. Cognitive dimension

As a way of understanding the real world and lived experiences of successful communication efforts - where communication is yielding desirable results in a visible way - participants were asked to share success stories from their own organisations. Following from the previous section, on the value of visual representations, an echo was found in current action:

> "Visualisations tend to have a big impact on people. Examples are moving diagrams that illustrate how development has happened within different areas. Moving images and the reward system seem to have some connection…" - PR

Similar examples of different kinds of visualisations involve communication in the shape of TV programs - documentaries, commentaries, reports, and news coverage. A specific example is made of a symbiosis with the Swedish program Kalla fakta ("Cold fact"), which makes documentary and debate around politicians, powers, and societal phenomena:

> "When Kalla fakta drew attention to how Sweden is financing gas extraction in the Russian Arctics through export credits. At the same time we published a report about the issue and had been lobbying for both politicians and relevant authorities. Shortly after the Kalla fakta program, the government made a decision about cutting off export credits to fossil fuels. It was something that happened almost entirely thanks to our work." - SNF

Partly relating to visualisation, or at least "visibilisation", are specific and directed campaigns that are also reported as sources of success from multiple participants:

> "An example is Klimatklivet ("The climate step") which is a program for climate investments. Here is financial support at its base and communication campaigns and tools are used to increase the awareness that the support exists and help applications." - NVV

> "An example was when we started campaigning for organic food, the campaign was called Byt till eko ("Change to eco") or #byttilleko (#changetoeco). We got the grocery chains to raise organic products and almost start to compete with each other for who had the greatest supply of organic goods. At the same time we communicated the benefits of organics and the bad of "non organics". It led to a big boom in organic sales that happened, likely greatly due to the communication that we drove and for mobilising the market." - SNF

Another commonly cited vehicle for success is education and courses arranged by the organisations, an experience multiple participants share:

> "A basic course in climate adaptation for politicians became very successful. Over 800 people signed up and the participants ended up being 600 people on two occasions. It was very appreciated and filled a pent up need." - SMHI

The educational efforts have on some occasions led to greater mobilisation through ripple effects, as described from courses addressing feelings common in the face of the climate crisis:

> "Our inspiration courses have been very popular and given much energy to the participants. They build on finding hope in spite of the urgent situation and feelings of powerlessness. We have received feedback through follow ups and also seen multiple initiatives that have started following the courses." - KA

Some emphasis is placed on the interactional elements of these educational efforts, which also seems to be a factor for engagement:

> "We experience the most engagement when people meet! When we have communicated around an event or an event group, we often notice that people are so excited and want to join in. I think community is key, that we in today's "impersonal" commodity society really just need to meet and do things together. It is in the community that something happens. So: speaking face to face is probably the communication method that works best!" - JV

3.3.3. Affective dimension

As a correspondent to the affective dimension of the representation of challenges and change, the focal points of the affective dimension of the representation of possibilities and successes are commonly described as engagement, inspiration, and hope. Engagement, while not the most common emotion, still plays a vital role in the affectation of audiences and actors:

> "It is always difficult to motivate people to engage themselves. Engagement has to emerge in a stable way within people, they have to experience it in a positive way for it to be lasting." - JV

In line with this, participants also describe the benefit or even necessity of connecting action and hope through communication:

> "First one has to say it like it is, and tell of the frightening situation and the threats we stand in front of (as Greta Thunberg has done so beneficially) but then also twist the communication directly to how action gives hope. That each and every one of us is the change and can create the changes that are required." - SNF

Multiple participants echo this way of transforming fear into hope through action; how feelings may be transmuted into engagement, relief from stagnation and atrophy, and turn from terror to increased wellbeing:

> "To communicate so that one understands that changed behaviour leads to a better life and not a worse one. To find the balance between "hope and despair": we MUST act NOW while there is still hope." - WWF

3.4. Connective summary

In the normative dimension of social representation of audiences and actors, participants' focus spanned across six realms of vital actors: companies, politicians, youths, educators, the individual, and "everyone". Participants voiced a strong call to action, expressing the believed necessity of engaging these six groups in operationalising positive change for the climate. The cognitive dimension of social representation of audiences and actors is focused on the current state of the situation, wherein participants describe communication with and action from companies, youths, educators, and the broader "everyone" as deficient or absent. The primary targets of most participants are instead reported as consisting of politicians and the general public. However, multiple participants express difficulties in reaching the wider general public, and how they in reality may focus more on a narrower, already climate-interested public. In the affective dimension of social representation on audiences and actors, participants are found to place extensive focus on the emotional aspects of both situation and communication. Feelings and emotive experiences of the audiences and actors are perceived as vital in making progress and hampering regress.

In the normative dimension of social representation of challenges and change, participants emphasise the shared belief that stronger leadership is necessary for progress and drive - that there ought to exist stronger institutional leadership and inspirational figures - and how these are currently missing from the picture. Multiple participants also express how communication must be made as a balancing act between hope and fear; that positives and negatives must be balanced so that audiences and actors are not rendered immobile in the belief either that the crisis is too insignificant or too massive to motivate action against it. In the cognitive dimension of social representation on challenges and change, participants agree on a number of present challenges to positive change. They perceive such change to be connected to risks, inconvenience, and cost in the minds of the general public. However, they also note that knowledge about the real state of the situation and situations does not defaultly necessitate changes in behaviour or attitudes towards them. Additionally, participants appear to be in agreement that economical perspectives are crucial motivators and likewise challengers to change, yet these perspectives seem elusive and often excluded from the public communication. All participants place great importance on the affective dimension of social representation on challenges and change, making reference to a multitude of negative emotions as inhibiting action - discomfort, uncertainty, stress, fear, anxiety, denial, hopelessness and powerlessness all deter individuals from engaging - and how these are vital to address and handle in the communication practice. Participants also note the influence of individuals' experienced capacities for positive impact and contribution to change; how themes of self-doubt and powerlessness pose challenges to positive engagement.

In the normative dimension of social representation on possibilities and successes, beliefs from the section about "Audiences and actors" are echoed: youths, politicians, and the general public are considered vital driving forces to success, and the individual is in focus both as a self-sufficient actor and as a catalyst who can make the other actors engage, for example by demanding change of politicians. The value of interaction between individuals and of group actions are also central to positive possibilities. Here, too, the value of engaging with emotions is highlighted - people ought to be motivated through their own feelings, needs and

wants, but they must also know how to act following that motivation. In the cognitive dimension of social representation on possibilities and successes, participants shared their lived experiences and real-time perceptions of successful strategies for communication. Prominent among these are different kinds of visualisations, involving communication through imagery, TV programs, documentaries, commentaries, reports, and news coverage; and specific and directed campaigns. Education and courses arranged by the participants have also yielded noteworthy results, in some cases causing ripple effects extending outside of their organisations. Multiple participants underline the efficiency of interaction; how interaction between organisation and audience in the communication situations have led to greater engagement. In the affective dimension on social representation on possibilities and successes, focus is placed on the importance of engagement, inspiration, and hope, not least in mobilising positive change - participants experience positive results when creating pathways between inspiring hope and directing action, so that action can follow feeling.

4. Discussion

This study has aimed to explore the perspectives of active environmental communication professionals, on what communicating global crises and enacting change means and looks like when performed in uncertain and sometimes unsupportive political and social climates. Despite challenging circumstances and contexts, the environmental movement persists in supporting the climate, encouraging action and engagement towards positive development for the planet and people on it, and different forms of environmental communication are vital to these processes. With a greater insight in the processes, priorities, and perceptions of official practitioners we may gain an improved understanding of how environmental/climate knowledge, information and communication are considered and handled in practice, as well as how practitioners reflect around these processes based on their own understandings and experiences. Additionally, it could help us identify unforeseen possibilities and challenges in communicating the climate, through lessons from the lived and learned experiences of these professionals.

A benefit of this social representation model is that it makes apparent the links between beliefs and perception, and whether these links are connected or absent. Even before we invite other scholars to the discussion, we may note some internal discord worth addressing.

4.1. Differences and disconnects between the normative and cognitive dimensions

The majority of the participants place emphasis on the importance of politicians' engagement, strong political leadership, and political action to pave the way for positive climate action, yet express the reality to be a lack of the very same. Similarly, participants suggest companies and economical powers, including personal economical cost perceived or experienced by individuals, are of substantial value in both personal and public decision-making, yet these sectors are excluded both from designated audiences and from communication content. In much the same way, participants aim for "everyone" as audiences and actors, but share their awareness that in reality their communication primarily targets already-initiated and environmentally concerned publics.

This could be related to the wider context of their country; while Sweden is often regarded both internally and externally as a forerunner in climate action and sustainability, the country struggles with a gap between policy and practice in climate action, with examples ranging from sustainability competing with economical interests and imperatives (Lidskog & Elander, 2012) to immense climate risks being understated and delegated to business-as-usual politics (Englund & Barquet, 2023).

The perceived missing engagement and action from politicians could be tied to what was described in the background section, of how environmental values tend

to run counter to perspectives within the right-wing movement. While no participants point to specific ideologies as obstructive, data from other studies' consistently show correlations between right-wing populism and lack of concern about the climate (Pew Research Center, 2020). It might therefore be useful to consider greater global (as well as national) contexts when considering political engagement in the environment.

4.2. The multitudes of values and their implication, and contestation, for focus and action

While a wide range of people express values displaying interest, concern, and engagement in environmental matters, these values are less often reflected in action. They act counter to their beliefs in their daily lives, opting for behaviours that are detrimental to the environment in spite of their stated values (Lavergne & Pelletier, 2015). This inverse relation is common enough to have coined its own term: the environmental action-belief gap builds on psychological studies finding belief to have little use for predicting behaviour, as particularly apparent in climate concerns, where people often act counter to their values (Grandin et al., 2021).

The value - or cost - of economical factors that elusively undertow participants' reflections is made apparent when discussing climate action. Lidskog and Elander note how alongside multiple environmental values, seemingly equal in significance, economical growth remains the crucial drive for action (2012). And conversely, Brulle and Jenkins pose that "powerful vested interests in the existing carbon-based economy . . . will continue to define values'' (p. 84-85, 2006) "that also mobilize public attitudes" (p. 125, Cox, 2010). While environmental values may be visible in attitudes and beliefs, economically cost-based behaviour tends to be prominently present in day-to-day choices (Steg & Vlek, 2009). As such, even changing attitudes and impacting knowledge - difficult as that may be - might not be enough to direct environmental action. As Shove posed in deliberate provocation, "after all the gap is only mystifying if we suppose that values do (or should) translate into action" (p. 1276, 2010). From this, we may assume less predictability between stated values and performed actions, and perhaps place focus on habits, interaction and possibilities in the daily lives rather than the stated values of audiences.

4.3. Possibilities for communication in changing the climate

Considering inclusion, as we wish to do - and the study's participants believe right to do - we can not expect one size to fit all. To successfully reach a wide diversity of audiences and actors, the strategies for communication must also be diverse, combining different approaches depending on context and direction (Nerlich et al., 2010). Interdisciplinarity is a renowned approach in environmental academia, and should perhaps be given the same space in real world communication practices - as Whitmarsh et al. declare: "We should be vigilant against claims that one particular perspective is the only, and correct, one - particularly when this view is one in which

society must change but sees no role for citizens in directing or enacting this change" (p. 260, 2011). This ties to Boström's notion (as mentioned in the background) that the diversity - the differences in approaches, structures, direction, foci, and methods - between environmental organisations lends greater strength to the environmental movement (2001). Instead of considering frames as competing (Spence and Pidgeon, 2010), greater efforts should be made to combine, connect, and communicate between different frames. In their call for recovering the strategic in climate communication, Cox emphasises the virtue of mobilisation rather than information. This could be especially relevant when, again, considering the role and influence of politics. Alongside scepticism towards climate change and human activity's impact on it, supporters of right-wing populist politics tend to show lower trust in scientists (Pew Research Center, 2020) and higher trust in pseudoscientific beliefs (Jylhä & Hellmer, 2020). This gives credit to the notion that mobilising "a relatively aware constituency" (p. 123, Cox, 2010) should be of higher priority than in attempting to increase information and acceptance for the scientific consensus.

How, then, is mobilisation made? Participants' examples of successes prominently focus on visualisation, education, and interaction. Visualisation as a tool to raise awareness and increase engagement for climate action finds support in the scientific literature, with iconography and imagery decreasing the mental distance to environmental events and increasing personal meaning in climate action (Spence and Pidgeon, 2010). Roosen et al. describe how visualisation and particularly environmental art can inspire and compel, create narratives and metaphors that engage concern and action, personal experiences of the climate crisis, as well as to stimulate communication between people (2017). This connects to the interactional element brandished by the participants, and aligns with contemporary communication theory's progression from supporting a traditional communication model (Shannon and Weaver, 1948) to exploring interactive models of communication (Moser, 2010), which may support social construction of the issues at hand and aid political, professional, and public engagement in climate action.

Considering the political climate, it could be useful to take lessons from this and turn attention towards alternate paths outside of the commonly-trodden scholarly ones. Adding to this, communicators might consider different ways of engaging the affective dimensions of audiences less likely to be attracted by either science- or identity-based environmental rhetoric. If there is no trust in science, and no identification with the environmental movement, communicators might find other ways of engaging audiences, by appealing to other values, habits, and cultures that are identified with.

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Popular science summary

A livable planet is still in the works!

In a political climate where the environment has been put in the back seat, there is an underrepresentation of voices raised in its defense. But even in unsupportive social and political climates, there are people fighting the green fight. Meet some of the people who invest their time in your future as climate communicators from prominent environmental organisations in Sweden share their experiences of their practice - including their sunshine stories of successes.

Scientists are in touching agreement on humanity's hand in the global climate crises. Despite this, Sweden is far from reaching its climate goals. This is not due to public disinterest - the majority of the people in Sweden see climate change as a very serious problem and believe that politicians are doing too little against it. However, climate action moves opposite to right-wing populism, which have grown in Sweden during the same time. This suggests that the climate crises struggle against competing interests in greater society. Still research persists, and so do environmental organisations with communicators at their front.

In this qualitative study based on rich text reflections, communicators from seven of the most prominent environmental organisations in Sweden were invited to ponder freely on what communicating global crises and enacting change means in uncertain and sometimes unsupportive political and social times.

Results encourage us with multiple examples of communication successes. The greatest results from communication efforts have been achieved through courses and education, face to face meetings, media attention, visualisation and specific, directed campaigns. Feelings like hope and inspiration are central to the cause, and people must know how to take action. People should demand change and persuade politicians to the same end, with the power of individual engagement.

Most participants stress the importance of strong political leadership to pave the way for positive climate action, but see them as missing in reality. Likewise, companies and economical powers are central drivers for decision-making, yet these sectors are missing from designated audiences and communication content. Communicators also struggle to engage people who are not already interested in the environmental movement. None of the participants discuss competing issues that might overshadow the climate conversation, which is a possible reason why climate values do not correspond with climate positive action.

Considering the political climate, we might take lessons and look to paths outside of the commonly-trodden ones. Communicators might think of different ways of engaging people who are less interested in science- or identity-based environmental rhetoric. If there is low trust in science, and no sense of belonging in the environmental movement, new approaches are called for, like appealing to other values and habits that audiences do identify with.

Acknowledgements

This work is dedicated to all who keep working, talking, fighting - who keep acting for positive changes for the climate, whatever the weather.

Appendix

Reflective text questions (translated from Swedish)

1. Which organisation are you representing?
2. What is your role within the organisation?
3. Which are the primary target groups for your communication?
4. If you would reflect openly - what do you think is the reason that positive climate action does not increase with increased knowledge about the climate crises? Why have we not come further?
5. What are the biggest challenges you see for influencing/guiding positive climate action through communication?
6. What would you say is missing or insufficient (within your organisation or society as a whole) for influencing/guiding positive climate action? What conditions would you want to change?
7. Within which areas do you think there are the most possibilities for influencing/guiding positive climate action through communication? Where would you place the focus?
8. What do you think are the primary drivers for action? What has the greatest influence over motivation?
9. What has, so far, had the biggest or most visible impact for positive change or responses from your organisation? (E.g. social media, laws/regulations, communication tools, PR campaigns, economical support…) Please share your experiences - what was communicated and how? How did you notice the response?

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