

Enough Fish in the Sea?Fish Farming Debate and Affective Practices

Abstract

Fish farming is a hot topic in the local press of the Jakobstad region on the west coast of Finland. In 2017, a local fisher established an open sea fish farming company to produce locally farmed fish with the aim of meeting the increasing demand for domestically produced fish. Open sea fish farming is debated due to its environmental impact. The establishment of the fish farm has been challenged and defended in several readers' letters from local politicians and officials, local activists, researchers, and the company's founder himself. The debate letters are filled with data on the environmental impact from nutrient emissions, and other measurable factors. However, the debate is not just about feed pellets, fish faeces, and the organic enrichment of bottom sediments—it is about the emotional relationship to the sea in a region forged by the Gulf of Bothnia. With affect theory as a starting point, I aim to analyse how notions of sustainability and sustainable foodways are expressed in a local newspaper debate about fish farming. How do the two sides of the debate present their views of sustainability?

Keywords: Affect, Affective Tools, Cultural Sustainability, Newspaper Debate, Emotions, Fish Farming, Sustainability, Sustainable Foodways



Introduction

Open sea fish farming is up for debate in the Jakobstad region, an area in Ostrobothnia on the west coast of Finland. In 2017, a local fisher founded an open sea fish farming company to produce locally farmed fish in the sea off the coasts of Jakobstad and Larsmo. The company aims to meet the increasing demand for domestically produced fish (Ekofish n.d.).

Previous research has shown that open sea fish farming is questionable due to its environmental impact (Holmer 2010). The establishment of the fish farm in Jakobstad has raised a lot of debate in the local newspaper. The letters to the editor are filled with data on the environmental impact from nutrient emissions and other measurable factors. At the same time, the debate is not just about feed pellets, fish faeces, and the organic enrichment of bottom sediments—it is an affectively charged debate revealing an emotional relationship to the sea in a region forged by the Gulf of Bothnia.

The region is described as "a viable agricultural region with strong traditions in food production and processing ... known for its clean nature and local, healthy produce and food from forests, fields, and the sea" (Finholm 2021, 6). The clean nature and locally produced food are mentioned in the debate as something to be proud of and worthy of preserving. Those who oppose the fish farm express a fear of losing these things (Fäldén, Ekstrand U., Ekstrand K., Karlström and Wiklund et al. 24.3.2019 ÖT; Kronholm 27.10.2019 ÖT; Malinen 12.7.2021 ÖT; Palovuori 15.5.2021 ÖT).

There are two sides to the debate: one arguing for the need of increased fish production, the other arguing against fish farming because of its impact on the marine environment. The company owner wants to make a living for himself, and the Finnish Government Programme declares that domestic fish farming needs to be increased to meet the growing demand (Finnish Government 2020). The alternative to farming fish in the sea is land-based fish farming, where fish production takes place in large water tanks.

While the debate evolves around nutrient emissions and the problems they may cause, the debaters turn to affective argumentation to get their point through. These expressions of affect show what engages the writers and what is important to them. I consider affect to be a combination of emotions, corporeality, and cultural context. Affect is relational and is shaped between individuals and their contexts. I use Margaret Wetherell's concept of affective

¹ Fish farming is debated in other regions as well as internationally, for example, a highly publicised land-based farm in Åland, a denied farm establishment in Pargas, the Norwegian salmon industry, and the now shutdown farms in the High Coast area of Sweden (Pettersson 18.7.2021 HBL; Vehmanen 2.8.2022 TS; Yle 7.11.2022; Löv 12.11.2018 Svenska Yle).

practice to underline the relationality of affect (Wetherell 2012, 10–12; 2015, 155–160). In line with Sara Ahmed, I view emotions as social or cultural practices. She does not separate emotion from affect; instead, she considers them adjacent (Ahmed 2004, 8–9; 2010, 32–33).

In this paper, with affect theory as a point of departure, I analyse how notions of sustainability and sustainable foodways are expressed in the local newspaper debate on fish farming. I explore how the two sides of the fish farming debate present their views of sustainability. The analysis is applied through the lens a self-developed affective tool model for qualitative content analysis of text. The four affective tools in the model are emotion words, emotive expressions, metaphors, and orthographic practices (Sandell 2022, 64–67). As material for this article, I refer to letters to the editor, or readers' letters, a genre in which someone writes to a newspaper with the intention of expressing their opinion and taking part in a public debate.

The fish farm started its production in the summer of 2021 with one net cage situated near the unpopulated island Kallan, in the sea off the coasts of Jakobstad and Larsmo. Most of the material analysed in this article was written between September 2018 and December 2021 and comprises 123 letters to the editor. The debate remains ongoing, even after the regional administrative court decided (in March 2022) to reject all of the objections against the fish farming company made by 13 individuals, associations, land and water area owners, the regional Centre for Economic Development, Transport and the Environment (ELY centre), the community of Larsmo, and the environmental protection authority in Jakobstad (Vaasa Administrative Court 2022; Jansson 17.3.2022 ÖT).²

This fish farming debate, centred in a local community, is connected to a global debate on sustainability and on sustainable foodways. Decisions about the establishment of the fish farm are made at the local or regional level, while the practice of fish farming on the whole is promoted at the European level by the European Maritime and Fisheries Fund (Fisheries in Finland n.d.). As Matilda Marshall (2016, 13) shows in her thesis, the question of what food is served is related to the use of natural resources and land areas on a global level. In line with Marshall, I argue that this also applies to how food is produced.

² According to the verdict, the fish farm is allowed to produce more fish than the previously licensed 700 000 kilograms of salmon per year. The production is limited by the volume of fish feed and its emission of phosphorus (6 880 kilograms per year) and nitrogen (60 800 kilograms per year), which according to ÖT allows for a production of nearly 950 000 kilograms of fish per year (Vaasa Administrative Court 2022; Jansson 17.3.2022 ÖT).

Marshall (2016, 17) presents the well-established three pillar conception of sustainability, which includes ecological, economic, and social elements.3 Ecological sustainability entails the earth's ecosystem and its reproductive capacity; social sustainability implies social and individual needs and objectives; and economic sustainability may denote economic growth only, as well as financial growth regarding both social and ecological sustainability. All three of these are often interconnected and seldom possible to keep separate. (Cf. Ren, O'Dell and Budeanu 2014). Referring to Chiu (2004), Hawkes (2001), Birkeland (2008), Soini and Birkeland (2014), and Dessein et al. (2015), Marshall (2016, 17-20) suggests cultural sustainability as a fourth pillar, with emphasis on the ethnologic definition of culture, to include the shared norms and values, traditions, practices, and beliefs among a group of people as well as the connection between past, present, and future. She proposes a view of cultural sustainability as the glue that keeps people together, for example, their common understanding, values, and actions, all of which also change over time (cf. Soini and Birkeland 2014, 214). This goes well with Ren et al.'s (2014, 909–910) critique of the sustainability concept as a meaningless term if the personal and emotional are overlooked.

Katriina Soini and Inger Birkeland (2014, 213–219) analysed the scientific discourse on cultural sustainability and found seven categories, or "story lines", related to heritage, vitality, economic viability, diversity, locality, eco-cultural resilience, and eco-cultural civilisation. According to them, the categories that combined stand out like a possible fourth pillar of sustainability are the heritage and cultural vitality story lines. These themes underline the importance of heritage and cultural life for social unity and local identity. The other story lines indicate that culture is merely an instrument to achieve economic, social, and ecological sustainability – instead of considering culture in itself as something that needs to be sustained (Soini and Birkeland 2014, 220). Marshall's (2016, 17–19) definition of cultural sustainability is similar to the heritage and vitality part of the sustainability discourse analysed by Soini and Birkeland (2014, 216–217). The emphasis is on passing down culture from previous generations to future generations to protect the local culture, as well as developing it to fit current and future needs.

Carina Ren, Tom O'Dell, and Adriana Budeanu (2014, 907) suggest that the conversation be about multiple "sustainabilities". They argue that there are several difficulties in defining sustainability as a uniform concept; it is widely used merely as a rubber stamp and as a marketing strategy by, for example,

³ The three pillars of sustainability are mentioned in the United Nations 2030 Agenda for Sustainable Development, the origin is unknown (UN General Assembly 2015; Purvis, Mao and Robinson 2019; cf. Sonck-Rautio 2019b, 9; Hawkes 2001).

tourism agencies and the retail industry. Claims of sustainability are hard to follow up on and confirm. Ren et al. (ibid.) ask whether the lack of coherent policies shows the malleability of the concept, or if it is a sign of its failure. Therefore, they seek a notion of sustainability with culture as a starting point.

[S]ustainability as a subject needs to be focused much more on a personal, emotional and thereby cultural plane. If we can't save the world ... maybe it's time to sink the bar, and reflect upon the cultural economy of sustainability and personal relations. That would imply shifting the focus of discussions of sustainability from the political and economic plane to the personal and social plane. (Ren et al. 2014, 910)

This entails rethinking sustainability by focusing on the emotional or personal instead of on political strategy or rational choice. The authors express a worry over the lack of personal and emotional angles of approach when sustainability is researched (ibid. 909-910). I examine the emotional part of the sustainability debate, how people argue using affective tools to express their views of sustainability. The basis for this article is understanding how different views of sustainability are expressed in the readers' letters. I analyse the letters as expressions of cultural sustainability, as they are a part of a local debate, drawing on arguments based in local culture, and presenting diverse views on how to prepare or preserve for the future (cf. Soini and Birkeland 2014, 216-217, 220). The article sheds light on the problem with agreeing on methods of sustainable foodways, due to conflicting views on what is even considered sustainable. The analysis is based on the local debate about the establishment of an open sea fish farm but includes arguments on how sustainability is perceived more generally. Sustainability as a concept is discussed from a cultural point of view as cultural sustainability (Marshall 2016, 17-19, 113-115; Soini and Birkeland 2014; Sonck-Rautio 2019a, 9–10; 2019b, 42 – 45). Focusing on the emotional and personal aspects of the debate on sustainable foodways contributes to an area of sustainability research that is still mostly uncharted (cf. Ren et al. 2014, 909–910).

Research material: Letters to the editor

The material for this paper consists of 123 letters to the editor published in the daily newspaper *Österbottens Tidning*, the local Swedish language newspaper in the Jakobstad region. I have chosen to focus on the readers' letters because they represent a genre of their own, apart from news articles and editorials written by journalists. The letters are more direct and written with

⁴ I translated the letters, originally written in Swedish, into English for this article. I used the original Swedish versions for the analysis, before translating them.

the expectation of being answered. Letters to the editor are a part of vernacular literacy, a non-institutional and colloquial writing and reading practice in which people read and write for their own purposes (Barton 2010, 109–111).

The letters were collected from a digital archive open to subscribers on the ÖT webpage, using the search words: "fiskodling" [fish farming], "ekofish" [name of the company in question], and "ecofish" [the company name was misspelled in some letters]. In addition to the letters, ÖT had also published about 60 articles, editorials, and columns on fish farm-related matters. These are not included in the analysis per se but are used as background material.

Surprisingly, the ÖT archive search results did not go back any further than 2020. To find the letters to the editor dating back to 2018, I made use of a public Facebook group "Fiskodlingsfritt Jakobstad" [Fish farm-free Jakobstad], which contained posts related to resisting the establishment of the fish farm. The group turned out to be useful since the administrators had published links related to the current media discussion. I was able to find direct links to readers' letters published in ÖT dating back to 2018. The group had linked letters and articles arguing against the establishment of the fish farm, as well as letters and articles arguing for its establishment. Considering the title of the group, there was a probable bias towards the anti-fish farming content. I was a member of the group during my research period to keep myself updated on the subject, but I was not active in any of the discussions. I did not announce myself as a researcher in the group, nor did I collect any data about the members, such as their comments or likes.

The first article about the establishment of the fish farm was published in June 2018. It is an interview with the owner of the fish farming company in which he talks about fishing for wild salmon in the sea off the coast of Jakobstad, and how hard it is to make a living out of it because of all the rules and regulations. With his newly established company, he wanted to farm high-quality fish for human consumption, in the open sea using net cages. The article concluded with information about open sea fish farming being recommended in Ostrobothnia by The Finnish Operational Program for the European Maritime and Fisheries Fund (Wisén 17.6.2018 ÖT; Fisheries in Finland n.d.). A couple of days later this article was followed by the publishing of an article about a lease agreement between the company and the town of Jakobstad (Wisén 20.6.2018 ÖT). Summer passed, and ÖT published two articles critical of fish farming. One was about open sea fish farms in Sweden being shut down due to environmental issues, and the other was about the high levels of

⁵ It is possible I have missed some letters, but the aim of this article is not to collect and compare them all. Furthermore, the content is repetitive, and a few more letters would not have had a considerable impact on the analysis or its results.

emissions from fish farms. This second article also pointed out that an environmental impact assessment is not demanded by the regional ELY centre to establish an open sea fish farm, even though the local head of environmental protection advocated for such an assessment (Jansson 19.9.2018ab ÖT). Editor Henrik Othman followed up on the issue in an editorial: he criticised the ELY centre for not demanding an assessment (Othman 21.9.2018 ÖT).

The debate started in September 2018 when the CEO of the company wrote a letter to the editor as a reply to the paper's previously published articles about fish farming. In total, the material comprises 101 letters taking a stand against the fish farm, while 16 of them are in favour of the establishment. Six of the readers' letters do not take a stand on the topic. The letters were published between September 2018 and December 2021, but the debate is ongoing as of November 2022. For the scope of this article, I do not go into detail on every single one of the letters, but I use direct quotes in my analysis to show examples of how the debaters use affective tools to get their point through.

All the texts include the writers' names and sometimes their affiliations. The affiliations were added by the writers themselves, for example, if they wrote as representatives of an organisation, a company, or a political party. I have analysed the texts as they are; I have not considered the writers' affiliations at any deeper level than what is written in their texts. A short presentation of the writers is included in the analysis chapter. Although the analysis is not about who the writers are, the presentation offers an idea of who is engaged enough to write a reader's letter, and what their different outsets are when discussing the topic of sustainability and/or fish farming.

Since the letters are signed with the writers' own names and published in a public forum, a newspaper, they are not anonymised. The material does not contain any sensitive information. The letters to the editor are openly accessible online for anyone who is subscribed to the newspaper, or for free via a legal deposit library (National Library of Finland n.d.). According to the Finnish National Board on Research Integrity TENK 2019 guidelines, no ethical review is needed for research based only on public information or archive data (2019, 20).

Affect Theory and Affective Tool Method

I use the term affect to grasp the emotional charge expressed in the material. The debate is heated, and the affective expressions contribute to an intense atmosphere around the topic. Affect and emotion are closely related; in research, they have been used as two different terms as well as synonyms (Rinne, Kajander and Haanpää 2020, 8–11). Laurajane Smith, Margaret Wetherell and Gary Campbell (2018) consider affect and emotion to be concurrently

embodied and semiotic. "Affect and emotion are flowing, dynamic, recursive and profoundly contextual, challenging static and neat formulations" (Smith, Wetherell and Campbell 2018, 5). Affect has been defined as a reaction that appears before emotion, while emotion is an interpretation of the affective reaction. Affect has been attributed to bodily reactions like blushing and sweating. Explained in emotional terms, they indicate embarrassment, fear or nervousness (Frykman and Povrzanović Frykman 2016, 14; Thrift 2008, 221; Wetherell 2012, 2–3).

I do not consider affect to be something separable from emotion. Emotions are not "afterthoughts" to affect (Ahmed 2010, 32). I do not consider affect to be something separable from emotion. Emotions are not "afterthoughts" to affect (Ahmed 2010, 32). Ahmed (2004, 13) writes that emotions are performative, and through expressing them, they become real. Emotion is created in the contact between objects, but the kind of created emotion depends on the cultural predisposition held towards an object (ibid. 7). Ahmed (2004, 7–13) views emotions as social and cultural practices, instead of psychological states. She describes emotions as circulating and moving, as well as sticky. This implies different effects: "emotions may involve 'being moved' for some precisely by fixing others as 'having' certain characteristics" (Ahmed 2004, 11). Wetherell (2015, 155) is critical of Ahmed's (2004) description of emotion as freely circulating between objects but agrees that it is not possible to separate emotion and affect.

The chronological order of affect before emotion, in which affect is seen as an embodied state and emotions are the process of naming these states and placing them in an understandable cultural context, is criticised by Wetherell (2012; 2015; Cf. Massumi 1995; Thrift 2008). She defines affect as "embodied meaning-making" and "human emotion" (Wetherell 2012, 4). Wetherell suggests talking about affective practice instead of attributing affect to bodily sensations and biological or psychological reactions (Wetherell 2015, 141). Affect is distributed and is a relational phenomenon. I agree with Wetherell (2015, 158) when she writes "subjects cannot be disentangled from objects, or individuals from their situations. Therefore, a concept like social practice has such power and persuasive force". Affect does not reside inside an object; an object without context does not cause an affective reaction. The affective response occurs in the encounter with an object (ibid. 157–158). Ahmed (2010, 33) also argues that one must have a preunderstanding and context to be affected by something. For someone to be affected in a similar way as someone else, they must identify with or look up to that someone (Wetherell 2015, 154).

My analysis of the material is based on affective tools. This method for a qualitative content analysis of published text is developed in my thesis (Sandell 2022), using Ahmed's and Wetherell's definitions of affect as the theoretical outset. The method also takes inspiration from Lena Marander-Eklund's (2009) utilisation of Ahmed's emotion analysis in her article on post-war memories, Gry Heggli's (2002) thesis on schoolgirls' writing practices, and Tuija Saresma's (2020) analysis of the performative capacity of texts in men's rights activist forums. Ahmed (2004, 4) argues that emotions are understood through analysing what they do instead of asking what they are. Saresma, influenced by Ahmed (2004) and Judith Butler's (1997) performative theory, shows how affective language produces and preserves ideologies and the sense of community (Saresma 2020, 217–224). Heggli (2002, 73–85, 95–100) analysed diaries by looking for the use of metalinguistic tools, such as orthographic practices and choice of words that give a text its special character. She categorised the texts depending on the feeling they express.

The affective tools are also influenced by performance theory. According to Richard Bauman (1971), performance is an organising principle which includes "artistic act, expressive form, and esthetic response, and that does so in terms of locally defined, culture-specific categories and contexts" (Bauman 1971: V). Performance is distinguished by being something else and follows different rules than what is considered ordinary, everyday behaviour (Hymes 1981, 81–84). By considering the letters as performances, I view them as occasions in which the writer knowingly and willingly stands in front of an audience with their text (cf. Hymes 1981, 84). My focus is on the text, but I am aware of the frames set by the genre of "letter to the editor". The text must be moulded into the generic frame to be published after passing an editorial assessment. According to ÖT, each letter must be signed with the writer's first and last name. Pseudonyms are accepted in exceptional cases (ÖT n.d.).

To analyse affect in text, I look for ways of expressing affect through the affective tools used by the writers. These affective tools are emotion words, emotive expressions, metaphors, and orthographic practices. They serve as four different means of conveying and mediating affect through text. (Sandell 2022, 66). Emotion words are named emotions, like "hate" or "love". Emotive expressions, on the other hand, are not named emotions, but are emotionally charged words that express affect. They can be positively charged, such as for example "amazing", or negatively charged such as "terrible". Emotive expressions are the opposite of matter-of-fact statements (Marander-Eklund 2009, 25; Melin and Lange 2000, 38; Sandell 2022, 66; cf. Sandell 2018, 42–43). Metaphors are figures of speech. For example, the phrase "time is money" is a metaphoric concept used to illustrate our way of thinking about time as a valuable and limited resource (Lakoff and Johnson 2003, 7–9). According to

Ahmed (2004, 12) metaphors may be used to convey emotions. Orthographic practices are various writing practices such as using capital letters and punctuation. They are used to communicate meaning or to emphasise an opinion in text (Heggli 2002, 96; cf. Palmgren 2014, 71–79). In the material analysed for this article, I particularly consider the use of exclamation marks, reiterations, and listings as orthographic practices. Affective tools are used by writers as a way of catching the reader's attention. They are a part of a textual performance and are markers for what message the writer wants to mediate.

The debate featured in this article is between two opposing sides arguing over one issue. Although I have refrained from personally partaking in the debate, I have a deeper understanding of the context than a complete outsider might have. I live in Jakobstad, and my family owns a summer cottage by the sea, a few kilometres from the area where the fish farm is located. However, I am not taking a stand either for or against the fish farm, this paper is a qualitative content analysis of the debate.

The analysis is concentrated around a selection of the readers' letters. The amount and length of the letters make it impractical to analyse the details of every single letter; therefore, I focus on only a selection of texts. All the published texts are included in the analysis, but only a few of them have been assessed in detail and are used to present the analysis in this article. In reading through the letters, I have paid attention to who has been for the establishment, who has been against it, how they have argued their case, and what words they have used. I have organised the material in three categories: for, against, and neutral. The selected letters have themes that are representative on a general level in the debate, with content that recurs in other letters, and is mainly about the establishment of the fish farm. Additionally, I concentrate the analysis around recurring themes. I have paid extra attention to how the debaters have argued their views of sustainability, by taking note of their use of the words sustainable and sustainability, and in what contexts sustainability has been mentioned. The analysis is divided into two chapters: the first one analyses the letters to the editor with a focus on the use of affective tools and includes three sub-chapters. The second analysis chapter pays extra attention to the mentioning of the word sustainability and in what context it is framed.

Affective Tools in Letters to the Editor

The first letter to the editor about the fish farm was written by Sebastian Höglund, the CEO of the fish farming company *Ekofish*. Höglund wrote that he wanted to answer the critique directed at the company's plans to establish an open sea fish farm. He wrote that, because of regulations made by government authorities, professional fishers are "endangered" (22.9.2018 ÖT). He presented numbers on estimated emissions of phosphorus and nitrogen from the farm.

According to him, the input from the farm was "literally a drop in the ocean" compared to current emissions from other local industries (ibid.). Höglund brought up the phosphorus and nitrogen emitted by "cormorants and seals" and wrote "when these populations are to be increased and protected no one is demanding environmental impact assessments of their emissions" (ibid.). He also wanted to take the chance to give the local environmental board a "little kick" for asking for an environmental impact assessment, which "forced us to pay for expensive additional inquiries unnecessarily" (ibid.). According to Höglund, the local authorities seemed more interested in "putting obstacles in the way" of new companies, and he described the request for an environmental impact assessment as a "cold shower" (ibid.).

Höglund's text is rich in metaphors and emotive expressions. He started out by describing a disappearing profession burdened by rules and regulations. The word endangered becomes a metaphor for the decline of a traditional profession, close to the nature and dependent on what the sea has to offer. Endangered is usually a word referring to endangered species, which includes every life form on this planet that is facing a risk of extinction in the wild (World Wildlife Fund n.d.). Here, it is used to describe the state of a profession, and the metaphor becomes extra powerful with its connection to the local culture. Fishery is a part of the cultural heritage in the Swedish-speaking community in Finland. The majority of Swedish-speaking Finns live in areas along the coast, and fish has traditionally been an important part of the local diet. Nowadays, professional fishers are few, the fish population is decreasing, and there are reports on the risks of eating salmon and herring from the Baltic Sea due to high levels of dioxins (Lindqvist 2018, 94–97; Nevalainen, Tuomisto, Haapasaari and Lehikoinen 2021: 2–3; Sonck-Rautio 2019a, 6–7).

To save the fishers from extinction, Höglund has found a way to make a living for himself by farming fish. He is irritated by the obstacles put in the way of his establishment. I interpret his mentioning of the protection of seals and cormorants as a metaphorical reference to the challenges and risks that the fisheries must deal with to make a profit. Seals damaging nets and cormorants eating all the fish are recurring topics when it comes to fishery in the Baltic Sea, especially in the Kvarken area, which includes the Jakobstad region (Höglund, J. 2015, 2, 13; Sonck-Rautio 2019a, 12–18; Varjopuro 2011, 450–451). In Höglund's letter, their emissions are compared to the impact of fish farming, which in turn is said to be nothing but a drop in the ocean. This is a way of diminishing the impact of the fish farm. Simultaneously, Höglund describes the establishment of his company as a battle against the authorities, authorities "forcing" him to "unnecessarily" pay for "expensive additional inquiries" (22.9.2018 ÖT).

The letter "Fish farming a threat to Fäbodaviken and Ådöfjärden" is written by Anders Kronholm, chair of the co-owners of a water area off the coast of Jakobstad (17.10.2018 ÖT). He wrote that it is his job as chair to care for good water quality and "of course it should be safe for children to swim" (ibid.). According to Kronholm, the water quality has gotten better during the past years thanks to improved water purification from the nearby industries. Now the planned fish farm "threatens to make matters worse" (ibid.). He claimed the permit procedure went through at a "record pace" (ibid.).

In the permit application the ELY centre experts (?) deem the annual input of 3200 kilograms of phosphorus straight into the sea as "insignificant"! ... Effectively it amounts to 40 000 litres of cow piss into the sea every day during the summer months, is that to be considered "insignificant"? (Kronholm 17.10.2018 ÖT)

Above is an example of how orthographic practices such as question marks and exclamation marks are used, as well as emotive expressions. The question mark within brackets is a way of questioning the expertise of the officials at ELY, which simultaneously distributes the writer's affect regarding the matter to the reader (cf. Wetherell 2015, 158). The word insignificant within quotation marks followed by an explanation mark works as a questioning interjection. The emotive expression here used to express and generate affect relates nutrient emissions to cow urine. This is a highly effective way of putting abstract numbers, such as calculations of different nutrients, into an understandable context. As a comprehensible substance, it is easier to understand the amount of 40 000 litres of urine, than it is to grasp the significance of "3200 kilograms of phosphorus".

In a letter titled "Food culture led astray" Maria Ehrnström-Fuentes and Ann-Christin Furu⁷ commented on the news about the farm and the lack of environmental impact assessment (29.9.2018 ÖT). They used the metaphor "from earth (or in this case sea) to table" (ibid.), a saying used by the European Commission, sa well as in cookbooks and television shows. The metaphor sheds light on the food chain, from primary production, to processing, to retail, to the dinner plate. In an ideal world, this would be a short and energy

⁶ Further into the debate, he signs his letter as a representative for the political party The Greens (Kronholm 18.5.2021 ÖT).

⁷ Postdoctoral researcher, Hanken School of Economics, and assistant professor, University of Helsinki.

⁸ In Swedish, the saying is usually "från jord till bord", which translates directly to "from earth to table". In English "farm to fork" is used, for example, by the European Commission in the "Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system" (European Commission 2020).

sufficient process where nothing goes to waste. According to these writers, climate change has had a negative impact on the Gulf of Bothnia; algal bloom will be a part of the "summer everyday" along the Ostrobothnian coast due to eutrophication and rising temperatures (ibid.). I interpret the "summer everyday" as a metaphor for an almost sacred time in the Nordic region, when the weather is warm, and people want to enjoy their summer holiday (ibid.).

The ideal summer everyday along the Finnish west coast is carefree and spent somewhere close to water. Under the headline "Ekofish is an eco-disaster" 20 cottage owners (individuals, families, and couples) signed a letter (Fäldén et al. 24.3.2019 ÖT). The text is structured around the question "[d]o we want this" followed by claims about what will happen if the fish farm starts its production (ibid.). It is concluded with a numbered list of "[w]hat we want" (ibid.). I consider these to be examples of orthographic practices that structure the text around affective claims. The question "[d]o we want this?" is followed by emotive expressions like "massive fish farming", "slimy fishing gear", "bloody water" and "[t]he company name is gravely misleading" (ibid.). The word massive works as an emotive expression that conveys the writers' emotions regarding the fish farm. Using the word massive instead of numbers is an affective interpretation of the scale of the establishment. Massive is something that becomes almost overwhelming. Slimy and bloody are emotive expressions that underline the foreseen awfulness caused by fish farming.

The debaters also claimed the name of the company, Ekofish, is gravely misleading (ibid.). They indirectly question the use of the Swedish word "eko", short for *ekologisk*, meaning ecological and/or organic in English. The Finnish Food Authority controls the organic food production in Finland. Using the European Union organic logo is mandatory on organic foods (Finnish Food Authority 2022). Ekofish does not use this logo on the company webpage, but Höglund himself wrote in his letter that the EU declared that "farmed fish is the most ecologically sustainable way of producing protein" (Ekofish n.d.; Höglund 22.9.2018 ÖT).

The list of "[w]hat we [the cottage owners] want" includes "keeping our fantastic sand beaches and beach cliffs without stinking, poisonous algae", "preserving the value of our summer cottages", "preserving the sea and nature for us, our children and generations to come" (Fäldén et al. 24.3.2019 ÖT). Poisonous is an emotive expression and refers to cyanobacteria, called bluegreen algae. It is a recurring problem during the summer in Finland. Cyanobacteria, caused by eutrophication, contaminate the water with toxins (Finnish Institute for Health and Welfare 2022; Cf. Merkel, Säwe and Fredriksson 2021, 398). Along with emotive expressions from a previous letter in which the writer wrote that the water should be "safe for children to swim", the texts

produce and mediate affect (ibid.; Kronholm 17.10.2018 ÖT). The reader may imagine what a summer day would be without the possibility to take a dip in the sea, especially if you are the owner of a holiday home by the water. In Finland, almost half of the population has access to a holiday home, with between 500 000 to just over 600 000 cottages (Voutilainen, Korhonen, Ovaska and Vihinen 2021). "Preserving the value of our summer cottages" is an emotive expression suggesting that an open sea fish farm would have a negative impact on the surroundings, and therefore is a risk to the value of the nearby holiday homes (Fäldén et al. 24.3.2019 ÖT).

Pontus Blomqvist and Teija Löfholm, initiators of a petition against the establishment of the fish farm,9 wrote a letter about following the chain of events "with deep concern" regarding the farm and the lack of environmental impact assessment (16.11.2018 ÖT). They stated they were "proud" of the investments in effective water purification centres that the regional municipalities and companies had made (ibid.). Concerned and proud are emotion words that mediate affect. The letter continues with a numbered list of 17 "facts and problems", an orthographic practice that brings structure to the text, and points to many concerns (ibid.). Amongst the 17 points, there are emotive expressions like "[t]his is not a coincidence" regarding the planned production amount of 950 000 kilograms of fish, which according to Blomqvist and Löfholm is just under the limit for avoiding an environmental impact assessment (ibid.). Stating that the planned production amount is no coincidence is an emotive expression that can make the reader suspicious of the plans. This shows how affective practice, such as using affective tools, may have influenced public opinion regarding the establishment.

The writers compared the estimated amount of nitrogen emissions of 35 000 kilograms per year to "dumping the manure from 3000 pigs straight into the sea" and claimed eutrophication of the waters would have "unforeseeable consequences for the fish population in the area" and "unforeseeable consequences for the occurrence of algae" (ibid.). "Unforeseeable consequences" is also an emotive expression that can evoke insecurity.

Just as in Kronholm's letter (17.10.2018 ÖT) mentioning cow urine, using pig manure as an example is an effective way of concretising more abstract numbers. Manure and piss work as emotive expressions, strengthening the affect conveyed in the texts. Pig manure can also be read as a metaphor. Pigs as metaphors are mostly used in a negative sense, even if feelings about pigs are not universally negative. While pork is one of the most important protein sources in western society, expressions calling someone as dirty as a pig or a

⁹ Further into the debate, Blomqvist wrote a letter signed as a candidate for the Swedish People's Party (SFP) in the local election (Blomqvist 12.5.2021 ÖT)

chauvinist pig are common (Sahlberg 2012: 128–129). In this context of comparing the nutrient emissions from a fish farm to pig manure or cow urine, using highly charged metaphors or emotive expressions conveys affect. There is no doubt about the standpoint of the debaters regarding the issue. Likening the establishment of a fish farm to dumping thousands of kilograms of urine and faecal matter into the sea is an affectively charged way of describing what they think the establishment of a fish farm would entail.

Point 17 by Blomqvist and Löfholm concludes with information about a petition demanding an environmental impact assessment or else stopping the establishment of the fish farm. "[W]e urge every resident in the region to participate!" (16.11.2018 ÖT). This is a combination of orthographic practices (numbered list and exclamation mark) and an emotive expression, urging the locals to act.

Our Children

An apparent emotive expression appealing to the reader is "our children" and their safety (Fäldén et al. 24.3.2019 ÖT; Kronholm 17.10.2018 ÖT). Kari Ranta-aho, a fishery advisor, ¹⁰ also referred to the future of children, asking what the first graders eat at school today, and what they will be eating when they graduate. "What do children born in 2020 and adults in 2040 eat and drink?" (11.12.2020 ÖT). Note that Ranta-aho spoke in support of open sea fish farming and saw it as a solution for sustainable food production, while Fäldén and Kronholm were against the establishment.

Kyrre Kverndokk has examined the use of "our children" in climate change discourse, in which this phrase "represents a future to be saved" (2020, 145). He points out that the timespan used for climate modelling includes seemingly random dates such as 2030, 2050, or 2100, while the use of "our children" as a reference scales down time to a graspable future encompassing two generations, the present for "the parent" and the future for "our children". Trimming the time frame of the climate-changed future brings the potential climate catastrophe closer (2020, 155).

In the fish farming debate, I interpret the reference to "our children" as a way of mediating affect and influencing the reader. At the same time referring to "our children" and what they eat now in comparison to what they will eat when they grow up is a part of the climate change discourse, due to the connections between sustainable food production and the climate (Rockström, Edenhofer, Gaertner and DeClerck 2020, 3–5). Andreas Backa has researched self-sufficient farming, and his informants claim they grow their own crops for the sake of their children. Yet his analysis shows the main reason is their

¹⁰ Public official at the Direction of the Agriculture.

own peace of mind and the sense of doing something to prevent the environmental crisis (Backa 2018, 122, 131). The use of children as a metaphor for the next generation and their challenges is a way of highlighting the urgency of the situation—for both those who see fish farming as a solution to future problems and those who see fish farming a cause of problems in the future.

Madness or Common sense?

After the publication of the readers' letter from the summer cottage owners (Fäldén et al. 24.3.2019 ÖT) a letter by Veijo Hukkanen was published. Hukkanen signed his letter with "CEO, fisheries counsellor, Kalaneuvos Oy, fish processing, chair of Nordic Trout Ab board of directors, fish farming" (27.3.2019 ÖT). He argued that open sea fish farming could be used to increase the number of local fish on "the plates of Finns" (ibid.). "We are a land of a thousand lakes edged by the vast Baltic Sea, and still, we are eating imported fish. That is madness." (ibid.). Referring to the Finnish national brand as a Land of a Thousand Lakes¹¹ paired with "the vast Baltic Sea" is a metaphor that highlights a great potential for a flourishing fishing industry (ibid.). Madness is an emotive expression pointing out how foolish "we" (I interpret this "we" as people living in Finland in general) are by eating imported fish, and even more ridiculous we will be if we do not take the opportunity to change our behaviour (ibid.).

Maj-Len Enlund, on the other hand, stated that it is "common sense" to not allow the establishment of a fish farm in the open sea (20.6.2021 ÖT; 7.9.2021 ÖT), an emotive expression declaring her standpoint is the most reasonable. In the material, she stands out as the person most engaged in hindering the establishment. According to my search results, she wrote a total of 43 letters on the subject between 2018 and 2021. She did not sign her letters with any affiliation, other than as a local and a landowner in Larsmo, and in one letter as a "former SFP supporter" (16.2.2021 ÖT). Her first letter to the editor, written together with Johan Enlund, was rather short and straight forward. They expressed their surprise over the fact that very few residents in Larsmo had reacted to the fish farming plans (14.3.2019 ÖT). In the letter signed "former SFP supporter" she repeatedly asks questions like "Who knew? Nobody acted?", "Who knew or did not want to know? Forgot or repressed?" indicating something was off in the process of granting the farm's license agreements (16.2.2021 ÖT). She also mentions research on corruption, and how it can come in the form of networks that favour some and exclude others (ibid.). The debate goes on, and with the local election approaching, the politicians want to have their say about the fish farm. Enlund comments on this in one letter.

¹¹ Finland Toolbox 2022.

The fish farm debate is getting heated—and rightly so. Now is the time to examine what went wrong and why, and which politicians are hiding behind the cliffs in the archipelago. The north wind tends to wash clean. /.../ We cannot afford destroying our lives, our open landscapes by the sea. /.../ Proud residents of Larsmo and Jakobstad will not give up their sea and their archipelago. /.../ May the north wind blow up to storm! (Enlund 22.5.2021 ÖT)

Enlund frequently uses metaphors and emotive expressions in her letters. There is no doubt she was affected by the plans and wanted the readers to be affected and then act accordingly. She called upon "the north wind" to expose the "politicians hiding behind the cliffs" (ibid.). It is a strong metaphor for policymakers not taking responsibility for their actions. The establishment of the fish farm became a topic for political debate before the local elections in 2021. However, the final decision about the permits for the fish farm was made by the Regional State Administrative Agency for Western and Inland Finland (2020), and not by politicians in Jakobstad and Larsmo.

Muddy Waters or Fish to Feed the Children

In the letters to the editor those opposing the establishment of the fish farm used affective tools to paint a grim picture of what would happen if the farm was realised. The water would be muddy with faeces, and toxic from algal blooms. Children and future generations would not be able to swim in the sea, and the cottage owners would see their investments go down in value. The writers arguing for the establishment claimed that open sea fish farming is the best alternative to importing fish, that there would be enough food to feed the children, and that there would be no actual negative consequences.

For the reader who is not an environmental expert, marine biologist and has no deeper insight into nutrient emissions and their impact, the debate easily becomes abstract. Therefore, the comparisons with manure and other discharge are so powerful in comparison. They bring the debate down to a more comprehensive level, and in this way, the debate reads as affectively charged. People are assumably more likely to react if they read that their children will be swimming in a sea of animal urine than they would with the mentioning of heightened levels of phosphorus and nitrogen in the water. On the other hand, the pro-fish farmers indicated that there might not be enough food to feed the children in the future if open sea fish farming is not sanctioned.

Arguing for sustainability

It is hard to see how the debate regarding sustainability can move forward when the two sides of this debate are so far apart. Those opposing open sea fish farming did not offer any actual solutions to the increasing demand for fish, except for taking a positive stance on land-based fish farming. The writers who were in favour of establishing an open sea fish farm denied the possible harmful side effects. They argued for fish as a sustainable protein, and even as an "ecological" or "organic" product (Höglund 22.9.2018 ÖT). According to Soini and Birkeland, the heritage and vitality story lines of cultural sustainability discourse lack a critical discussion of what sustainability entails; rather it is taken for granted (2014, 220). At first glance, sustainability is not the most central topic of the debate, yet it is central to the debate in a broader perspective. A word search for sustainability showed that it is mentioned in 22 of the letters. Ostrobothnia is seen as a region with clean nature and a long tradition of producing food from forests, fields, and the sea (Finholm 2021, 6). This appears vital to the understanding of the debaters' sustainability view.

The first reader's letter to mention sustainability was the initial one by Höglund, in which he claims farmed fish is the most "ecologically sustainable way of producing protein", and that the establishment would "meet the demands of sustainable aquaculture" (22.9.2018 ÖT). This is contested in the following letter, in which Ehrnström-Fuentes and Furu, validating their argument with their profession as researchers, present their view of the fish farm establishment as an example of "how sustainability and food culture are constructed in Ostrobothnia at the moment" (29.9.2018 ÖT). They mention economic, social, and cultural dimensions as important to maintaining long-term sustainability within the bounds of our planet. They describe a sustainable food culture that maintains a healthy environment and includes energy sufficient production and transport. Their argument that food is the hub of the sustainability issue", is a metaphor that puts food at the very centre of what is at stake in this debate, and in the sustainability debate at large (29.9.2018 ÖT; Cf. Rockström et al. 2020, 3–5; Ren et al. 2014).

Jonas Harald is a representative for the fishery action group within a regional cooperation organisation in Ostrobothnia (*Aktion Österbotten*) that is developing a programme for supporting fishery, aquaculture, and the marine environment (26.8.2021 ÖT). He has been interviewed about the matter on several occasions in ÖT and has written two letters to the editor. Harald responded to a letter that characterised him as an advocate for farmed fish. "I am a warm advocate of sustainable and local food production, where fish is an important part that deserves attention" (ibid.). He rhetorically asked if the import of farmed fish should be increased or if it should be produced nationally if it could be done in a sustainable manner. According to Harald, land-based fish farming is still unprofitable, and from "a principle of sustainability and climate impact", open sea fish farms are a better alternative (ibid.).

¹² Using "hållbar" as a keyword.

Despite the apparent divide between the two opposing views regarding open sea fish farming, the issue is not that black and white after all. Two of the debaters, Ehrnström-Fuentes and Harald have played an active role in establishing a direct sales system for agricultural products named REKO.¹³ In the debate about the farm, they presented different views on sustainability in relation to food. Harald argued for the benefits of fish farming, while Ehrnström-Fuentes took a stand against the establishment. In the debate, both sides expressed a will to make the right choice for the future. However, in reading the letters arguing in favour of the fish farm, it seems like these writers are more interested in meeting the current need of more domestically produced fish. While those opposing the establishment are afraid of how the farm will damage the environment. What is perceived as sustainability by one might not be considered sustainable by another. As mentioned previously, it might be more adequate to talk about sustainabilities in plural (cf. Ren et al. 2014, 907).

At the core of sustainability is the idea that we make sure that "the future generations inherit a world at least as bountiful as the one we inhabit" (Hawkes 2001, 11). The debate is about how to reach that goal. The debate circulates around values, what is important in the local culture (cf. ibid.; Marshall 2016, 17–20). In arguing for or against fish farming in a local context, the participants are taking a stand for what is important to them. In sharing these arguments, they seek support from their community. This became extra prominent in the debate when people were asked to sign a petition against the establishment of the fish farm, when the cottage owners wrote a joint letter, and when the residents were urged to act for their community, their environment, and the future.

I consider the sustainability view presented by the locals in Jakobstad and Larsmo arguing against the establishment of the fish farm to be a view of cultural sustainability. These debaters have taken a stand for their local community and its values. These values include preserving the environment and culture for the ones living in the region today and for future generations (Cf. Soini and Birkeland 2014, 216–217, 220).

The farm opponents use of affective tools to express opinions are a sign of an emotional relationship to the sea in their region. It shows what the locals consider important to them and how they view their environment and culture. The letters opposing the fish farm represent a sustainability view based

¹³ From Swedish Rejäl Konsumtion, meaning fair consumption. Introduced in 2013 by Thomas Snellman who was inspired by the French Associations pour le Maintien d'une Agriculture Paysanne, a system where customers can subscribe to a certain number of products directly from the producers. The Finnish version was launched in Jakobstad under the name REKO ring. There are over 600 rings in 14 different countries (Finholm 2021, 5, 13).

in culture. It is connected to their personal feelings, expectations, and desires. They are putting words on the kind of sustainability that Ren et al. (2014, 910) mention as "emotional orientation and cultural disposition". Hanna Palovuori, a representative of the Greens in Jakobstad, explains her standpoint against the fish farm like this:

The sea is portrayed in the Jakobstad coat of arms, the town is emptied during summer because the people move to their summer cottages by the sea, the beaches in Fäboda ... our identity is connected to a small maritime town. (Palovuori 15.5.2021 ÖT)

Palovuori's text uses affective tools in a subtle manner; it contains emotive expressions painting a nostalgic and romantic picture of life in a small town by the sea. Affect is also apparent in the arguments made by Höglund, the fisher who wants to begin farming fish and make a living for himself. He debates using environmental claims, but he also expresses personal frustration as a company owner and fisher.

For the fishery representatives arguing for open sea fish farming, the debate is not as emotionally charged. Their contribution to the debate also stands out since they are writing in the capacity of business professionals (cf. Barton 2010: 109–111). They argue for a sustainability in which financial and environmental goals meet. Fish as a sustainable food is a central argument in the fish farm debate. Farmed fish, according to the letters by Harald, Ranta-aho, and others, is a sustainable protein (26.8.2021 ÖT; 11.12.2020 ÖT).

Cultural sustainability shines a light on what is important in a shared culture. The local production of food is considered important in the region. This is shown through the example of how REKO became a success (Ehrnström-Fuentes and Leipämaa-Leskinen 2019; Finholm 2021). The significance of locally produced food is also visible on a larger scale through large food industry actors in Jakobstad. Because of the proximity to the sea, fish is and has been an important part of the local diet (cf. Lindqvist 2018, 94–97). The cottage owners stated they want to preserve the naturally occurring fish stock to make sure it is possible henceforth to buy fresh fish from local fishers (Fäldén et al. 24.3.2019 ÖT). The writers arguing for the establishment of the fish farm also used cultural arguments. Fish is considered an important animal protein for many; fishery is a part of the local culture, and a fish farm would help preserve that profession.

Conclusions: Local Cultural Sustainabilities

The question this article aims to answer is how the two sides in the fish farming debate present their view of sustainability. By focusing on affective tools

in the material, the analysis shows what is considered important among the debaters. It displays what norms and values they share in relation to the environment, food, and culture. Cultural sustainability is a useful term for describing how they expressed their views on sustainability. The things that the debaters considered sustainable were things related to their shared culture. In this point, those opposing the establishment of the fish farm and those arguing for the farm share some arguments. They all want to prepare for a better future. However, they disagree on how to get there. According to the writers in favour of the establishment, it is necessary to prepare for the increasing need of more domestically produced fish. The ones resisting the establishment argue that an open sea fish farm will pollute the water and therefore should be prevented.

One's view of cultural sustainability is expressed through the choices they make, such as the food they eat. It is evident that fish is important in the Jakobstad region. Marshall describes how people balance between different sustainability ideals when shopping for food. For example, the choice between organic or local becomes a negotiation (Marshall 2016, 103–113). To the debaters opposing the farm, it is also important that the fish is caught wild and not farmed in the open sea—at least not in their "own sea". The notion of sustainability in the debate is focused on local concerns, only a few of the letters connect the issue to a larger, global debate about sustainability. According to Marshall, the notion of a sustainable society is not only based on preservation of the environment and its resources, the local economy and social relations are also considered important (Marshall 2016, 113). In the debate, concerns for the local environment and foodways combine cultural and ecological values, resulting in a local cultural sustainability view (cf. Soini and Birkeland 2014, 216–217, 220).

Choosing locally produced food is seen as a sustainable choice charged with ideas of tradition, identity, environment, and nostalgia. This surfaces in the letters when the debaters write they want to buy fresh fish from a local fisherman, when they describe the sea portrayed in the town's coat of arms, and so forth (Fäldén et al. 24.3.2019 ÖT; Palovuori 15.5.2021 ÖT). The fisherman, on the other hand, describes how he is struggling to continue his profession (Höglund 22.9.2018 ÖT). He too expresses a cultural view of sustainability in which he can continue a traditional profession in a new way—and keep selling local fish to the locals. Conflict arises due to differing views on sustainability.

There is potential in continuing to analyse the debate to reach a deeper understanding of the debaters' sentiments. Another possible approach would be widening the perspective to the global debate on sustainable foodways. The method for analysing expressions of affect in text through affective tools

could be useful when studying emotional aspects of debates regarding, for example, wind farming and mining for battery component minerals. Additionally, I hope this paper contributes to further research on the importance of understanding cultural sustainability and the value of considering emotional aspects in sustainability research.

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