ORIGINAL ARTICLE

DOI: 10.51480/1899-5101.15.1(30).3

# Facebook Groups in Sweden Constructing Sustainability: Resisting Hegemonic Anthropocentrism

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**Abstract:** This article examines how Facebook groups in Sweden, that focus on the environment, address issues of sustainability. The research, conducted over a one-year period (May 2019–April 2020) combines mapping analysis, which identified a population of 152 environment-focused Facebook groups, and quantitative content analysis, which gives the overview of how these groups represent sustainability and human-nature relations. The analysis pointed to an overwhelming support for counterhegemonic, ecocentric positions, coupled with a strong critique against the hegemony of anthropocentrism. These findings relate to the general discussion concerning the potential of social media to function as spaces where hegemonies are contested and the vision of social change, in this case about the environment, takes shape, but also to the limitations of such possibilities.

**Keywords:** Facebook groups; sustainability; ecocentrism; anthropocentrism; hegemony.

## INTRODUCTION

A key concept in the debates on environmental issues is that of sustainability. In the already complex issues of safeguarding the environment, and the discussion of the optimal means to achieve that aim, sustainability is an important signifier, as it captures both the need for intervention and an agenda for the future (Bartlett, 2019; Borgström Hansson, 2003; Kopnina, 2013). At the same time, the sustainability concept does not always help in addressing problems,

proposing solutions and organizing actions, as it has many, often diverging or even opposing, significations (Cooper et al., 2012; McManus, 1996; Peterson & Norton, 2007). What these diverse approaches to sustainability do have in common is that they address issues of desired or undesired change, reflecting particular visions of the future.

This article examines how Facebook groups in Sweden address issues of sustainability, and whether they engage with anthropocentric or ecocentric approaches to sustainability. In order to achieve this aim, the research first employed mapping analysis (see Voniati et al., 2018), which identified 152 Facebook groups that focus on the environment and are related to Sweden. The collected data of the mapped Facebook groups were then subjected to quantitative content analysis (Krippendorff, 2004), offering a broad overview of how these groups address sustainability in Sweden. As the findings indicate, the great majority of these groups resist the hegemony of anthropocentrism and articulate a counterhegemonic ecocentric discourse towards sustainability, seeing humans as equal to, or as part of nature. At the same time, there is a minority of Facebook groups that align with the hegemonic anthropocentric view of sustainability, prioritizing humans' entitlements over nature.

Interestingly, in these specific types of Facebook groups and in the Swedish context of environmental concerns, the counterhegemonic ecocentric approach towards sustainability becomes dominant. This relates to the broad discussion on the potential of social media to provide space for the articulation of voices and discourses that contest hegemonies, pointing to the possibility of social change and of the formation of new, alternative hegemonies. At the same time, one needs to be careful not to assume that specific communicative spaces (in this case, the environment-focused Facebook groups in Sweden) are representative of broader societal settings and alliances and that their ideological projects are automatically – or even easily – translated into public policy.

## APPROACHES TO SUSTAINABILITY

This study is embedded in a social constructionist paradigm[1] (Burr, 1995), which argues that reality and knowledge are not fixed but are socially constructed, being the product of social struggles. The study focuses on how nature and the environment, and more specifically, sustainability are socially and discursively constructed (see, e.g., Dryzek, 2013; Hajer, 1995) through political processes. The study's social constructionism reflects not only its regards towards measures

1 We believe that our use of quantitative methods is not at odds with this paradigm, even though it requires a non-positivist reading of the research results.

and policies concerning sustainability and the protection of the environment, but also what nature is and is not, and how human-nature relations should be apprehended and manifested.

As a concept, sustainability is a broad term, articulated within environmental, economic and social dimensions (Bartels & Nelissen, 2002), which, as we shall see, also enables the discursive struggles over its meanings. Environmental sustainability, in particular, has been described as "the act of consuming natural capital at a rate equal to – or less than – that at which it can be naturally replenished" (Pal & Jenkins, 2014, p. 390). The broad diversity of approaches to environmental sustainability that have been adopted by scientists and scholars are clustered around anthropocentric and ecocentric positions, echoing hegemonic and counterhegemonic positions respectively, to nature and human-nature relations.

## HEGEMONY AND COUNTERHEGEMONY

Before presenting in more detail the arguments of the hegemonic and counterhegemonic camps to sustainability, a short reflection on how hegemonic orders are established but also contested is deemed useful. Hegemony, in Gramscian terms, is understood as ideological dominance through "the organisation of consent based upon establishing the legitimacy of leadership and developing shared ideas, values, beliefs and meanings" (Longhurst et al., 2008, p. 73). Hegemony consists of "the power to frame alternatives and contain opportunities, to win and shape consent, so that the granting of legitimacy to the dominant classes appears not only 'spontaneous' but natural and normal" (Clarke et al., 1976, p. 38). The engineering of consent is performed through signifying processes and practices of articulation that successfully connect ideas with groups and institutions. As Stuart Hall argues, "[i]deas only become effective if they do, in the end, *connect* with a particular constellation of social forces. In that sense, ideological struggle is a part of the general social struggle for mastery and leadership–in short for hegemony" (1986, p. 42, emphasis in the original).

The contingency and the openness of the social (Laclau & Mouffe, 1985) make all struggles over hegemonic dominance incomplete and only provisionally resolved and sedimented:

> [T]he dominance of certain groups, who are engaged in particular struggles and who manage to fixate their discursive-material positions as hegemonic – at least temporarily – does not exclude other social groups from producing counter-hegemonic discourses with their own truth claims. (Carpentier & Doudaki, 2018, p. 4)

In certain contexts, these counterhegemonic discourses manage to subvert the dominant hegemonies and replace them (temporarily or for longer periods) as the new hegemonies.

## HEGEMONIC-ANTHROPOCENTRIC APPROACHES TO SUSTAINABILITY

Environmental issues are not outside these struggles over hegemony, as they articulate, and intersect with, diverse, divergent and often conflicting social, political and economic claims about the organization of societies and their environments. Anthropocentrism, the set of ideas that positions humans in the center of their environments, has for centuries been the dominant guiding principle of human civilization and development. As Jan Aart Scholte and his co-authors (2020, p. 10) wrote: "Indeed, the hegemony of anthropocentrism is so strong – perhaps still more powerful than that of the state or capitalism – that most people are not even aware of this world-order structure and can imagine no alternative mode of ecology". Anthropocentrism echoes the hegemonic paradigm of sustainability, which focuses on humans' entitlement to use natural resources, to control and dominate their environment for survival and for profit. This premise is founded on the argument that "the natural world and all its resources exist solely for human use" (Corbett, 2006, p. 28), which are meant to serve primarily human needs. Katz (1999) argues that anthropocentrism expresses both the

> idea that human interests, human goods and/or human values are the focal point of any moral evaluation of environmental policy and the idea that these human interests, goods and values are the basis of any justification of an environmental ethic. (pp. 377–378)

The relations structured through these anthropocentric views on sustainability construct hierarchies between more and less important species, and articulate dualist and antagonistic positions between humans and nature.

Anthropocentric positions towards environmental sustainability are embedded in the hegemonic discourses regarding the organization of economy and the capitalist models of development (Kidner, 2014; Kopnina, 2013; 2016; Pal & Jenkins, 2014). Such approaches often use interchangeably the terms "sustainability" and "sustainable development",[2] focusing mainly on the economic aspects of development. In these hegemonic anthropocentric approaches, "nature" becomes

2 Still, earlier attempts to define sustainable development were not focused on economic criteria. For example, in the frequently quoted definition included in what is known as the Brundtland Report, "[s]ustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

transformed into and replaced by "environment". According to Escobar (1995, p. 196), this transformation into "environmental managerialism", which has its roots in the post-WWII's rapid industrialization and urbanization processes, results in treating nature as raw material and a resource to be used by humans. Such a capitalist logic to sustainability (Foster et al., 2010) helps cement a market-driven approach to nature, prioritizing the exchange and monetary value of nature and its products, which "takes precedence over [any] other types of value" (Kopnina, 2013, p. 59). "The idea of manageable environment commodifies the value of nature's economy for economic growth" (Pal & Jenkins, 2014, p. 401), which has serious repercussions on what is framed and prioritized as sustainable. Practices labelled as sustainable, in the name of efficiency and productivity, such as industrial agriculture, hide "the cost of depletion of soils, exploitation of groundwater, erosion, and extinction of biodiversity" (Shiva, 2005, p. 32, as cited in Pal & Jenkins (2014, p. 401)).

Such anthropocentric perspectives to sustainability, that may even be seemingly environmentally aware, as the one of ecological modernization (e.g., Mol & Sonnenfeld, 2000), have been critiqued for overemphasizing economic growth and technological innovation and progress as the keys to solving societal and environmental problems (Hajer, 1995). Such approaches echo a solutionist or as per Dryzek (2013, p. 52) a "promethean" ideology, the strong belief in the ability of humans and their technological artefacts to overcome all problems. Kopnina (2013) argues that

> [a]lthough proponents of human ingenuity celebrate human capacity for invention and innovation, critics question whether technological fixes can lead to sustainable practices, particularly if powerful elites such as corporate leaders are still allowed to follow the business-as-usual trajectory. (p. 54)

Within this anthropocentric view of sustainability, human-made change instigated via, and instigating, technological and economic evolution, is considered beneficial and welcome. Humans intervening in nature and in their environment is seen as improving their living conditions. Especially when it is understood as necessary to protect humans or relieve them from danger, human intervention is unconditionally legitimated and expected, while the environment is given much less consideration.

Hegemonic prospects of sustainability that (over)emphasize the centrality of science and technology tend to prioritize Western knowledge systems, and marginalize non-Western forms of knowledge. Sustainability projects organized in various parts of the global south often impose a western philosophy, disregarding local science and local communities' socio-cultural value systems, and devaluing local and indigenous forms of knowledge (Banerjee, 2011; 2000; Escobar, 1995).

## COUNTERHEGEMONIC-ECOCENTRIC APPROACHES TO SUSTAINABILITY

Ecocentric approaches start from the premise that humans are part of, and not superior to nature (Corbett, 2006, p. 27), aligning with a counterhegemonic view of sustainability. These approaches take on a long-term and broad approach to sustainability, not prioritizing economic value, but highlighting nature's intrinsic value. They also focus on the fragility, complexity and interdependence of ecosystems, and thus on the importance of protecting biodiversity (Dunlap, 2008). Ecocentricism promotes the idea of interconnectivity not only of species, but also of nature and culture, opposing dualist positions that separate nature and culture. The rejection of a human-nature dualism is articulated in Haraway's (2003) concept of "natureculture", which captures this "inseparability in ecological relationships that are both biophysically and socially formed" (Malone & Ovenden, 2017, p. 1).

One of the areas that adheres to a counterhegemonic ecocentric approach to sustainability is the environmental philosophy of deep ecology, that supports the idea of inherent value of all biotic and abiotic elements of nature. Deep ecology focuses on the interdependence of organisms in the living environment without prioritizing any of these organisms. This philosophy takes a holistic view, on the premise that the different elements of ecosystems (humans included) can only function as a whole, therefore, the survival of any part is dependent on the wellbeing of the entire ecosystem (Devall & Sessions, 1985; Naess, 1973; Sessions, 1995).

Ecocentrism also opposes the hegemonic hierarchization of species, which creates antagonistic relations among them, promoting instead symbiotic relations among species, but still acknowledging the possibility of conflict. The prioritization of an economic logic leads to the creation of hierarchies and to the classification of species and elements of nature, as being more or less useful, based on whether they serve direct human needs, resulting in the loss of biodiversity:

> Empirical evidence of rapidly disappearing biodiversity seems to suggest that explicit anthropocentric views, pure or mixed with neo-classical economic short-term market exploitation, have led to abandoning biodiversity conservation, other than conservation of species used by humans for consumption, recreation, medical experimentation, tourism or pet-keeping. (Kopnina, 2013, p. 59)

Ecocentric approaches to sustainability argue for the need of a strict environmental legislation that will enable the conservation and preservation of ecosystems, safeguarding biodiversity. Their understanding of sustainability focuses

on "continuity and balance" (Kopnina, 2013, p. 53), and not so much on change, which is often seen as an undesired or feared negative evolution, associated with risk of degradation and loss. Some scholars staying close to this camp stress the need to understand sustainability in terms of stability. For them, "[t]o be in a stable state is not to be motionless; it involves movement and progression within an orbit" (Shiva, 2005, p. 51). Hence, "[t]he key to achieving stability is living within nature's limits, balancing with nature's ecological processes, and treating nature's economy as primary and the market economy as secondary" (Pal & Jenkins, 2014, p. 401). Thus, stability is not to be seen as stagnation, but as protecting continuity and balance in ecosystems, characterized by symbiotic relations that incorporate natureculture (see Haraway, 2003).

Even if continuity and stability are prioritized as safeguarding sustainability, while human activity is often seen as disruptive, and change is connected to negative evolution, at the same time, ecocentric approaches to sustainability argue for the need of a paradigmatic shift. Being connected with a counterhegemonic approach regarding the organization of societies and their models of growth, ecocentrism attacks globalized capitalism and neo-liberalism (Foster et al., 2010; Kopnina, 2013; 2016; Shoreman-Ouimet & Kopnina, 2016) as the main perpetrators of environmental destruction and calls for structural change. Its appeal for collective action spans the micro-macro spectrum (ranging from micro-individual action to coordinated policy action), and is also targeted towards more efficient environmental protection through stricter legislation and its implementation, so as to prevent, and if possible, reverse negative environmental change caused by human activity.

Ecocentrism is not spared the critique of being idealistic and inapplicable on a large scale. It is also attacked as insensitive to humanity's other urgent problems, that are manifested especially in the global South, such as extreme poverty and famines, and which are sometimes connected to rapid development solutions, prioritizing the wellbeing of humanity (Guha, 1998; Guha & Martinez-Alier, 1997; Nations, 1988). Relatedly, ecocentrism is critiqued for being reactionary, for taking an anti-humanist position, even for being misanthropist, disregarding the value of humanity and of human progress and civilization (Bookchin, 1987; 1990).

## ENVIRONMENTAL ISSUES IN SWEDEN AND ON SOCIAL MEDIA

Issues related to environmental sustainability occupy a prominent position in the Swedish public sphere. Sweden is seen as leading a number of sustainability and environmental policies, setting the example at the international level.[3] Also, Swedish society is considered to be sensitive towards environmental issues, and there is a long tradition of environmental struggles and the ecological movement in the country. This environmental consciousness is reflected in Swedish mainstream media's content (Magnusson et al., 2021; Shehata & Hopmann, 2012) but also in non-professional and personal media, online and offline, and social media platforms such as Facebook, where news, comments and discussions about sustainability and the environment abound (Haider, 2016; Joosse & Brydges, 2018; Olausson, 2018).

Social media, and Facebook in particular, provide spaces for expression and interaction around environmental concerns, addressing audiences' specific interests and perspectives. They offer visibility to issues and topics that do not always find their place in mainstream professional media, and attribute voice, authority (Boykoff et al., 2015; Cox, 2012; Lester & Cottle, 2015) and the expertise of experience (Joosse & Brydges, 2018, p. 697) to individuals. For all these reasons (self-expression, non-moderation, direct interaction, etc.), social media can, under certain conditions, serve as spaces where unpopular, radical, silenced and counterhegemonic voices are expressed, regarding a broad range of environmental issues (Arlt et al., 2019; Brüggeman et al., 2020; Häussler, 2019). Also, there are several studies indicating that "socially-mediated communication provides a novel forum for counter-hegemonic resistance" (Burch, 2021, p. 250) in the context of environmental struggles (Olteanu et al., 2015; Spyksma, 2019).

At the same time, a lot of environment-related content that circulates on these platforms is not professionally monitored and can contain unsubstantiated or distorted information about complex environmental issues (Bloomfield & Tillery, 2019). Furthermore, the social media environment, and particularly that of Facebook groups, supports the development of "echo chambers", facilitating audience exposure to content that is in line with audiences' pre-existing views and beliefs, strengthening fragmentation and polarisation around environmental issues such as climate change (Brüggeman et al., 2020; Edwards, 2013; Elgesem et al., 2015; Van Eck et al., 2020). Additionally, social media's accounts on the environment tend to offer fragmented and personalized approaches and concerns around complex issues, focusing often "on the individual as the

3 This positioning is not without critique. See, for instance, Hickel's (2020) argument that Sweden's "material footprint" is one of the largest in the world. Furthermore, it should not be neglected that despite its 'green' political orientation, Sweden's economic model is structured around a capitalist-led industrial organization of the economy and society at large.

location for change for the environment" (Joosse & Brydges, 2018, p. 697) and not so much on politics and coordinated collective action.

## METHODS OF DATA GATHERING AND ANALYSIS

This research focuses on Facebook, and reports on a mapping analysis (see Voniati et al., 2018) which has identified 152 Facebook groups that explicitly relate to the environment, have a connection with Sweden, and have been sufficiently active[4] within a period of one year (May 2019-April 2020). The mapping analysis is supported by a quantitative content analysis (Krippendorff, 2004) that locates the main elements, through which the identified Facebook groups address issues of sustainability.

The mapping research aimed to identify all Facebook groups[5] that explicitly focus on the environment in Sweden during the one-year period of study. Methodologically, it was guided by a previously developed model for mapping community media organizations (Voniati et al., 2018), which was adjusted to serve the purposes of this study. Briefly, the mapping procedure consisted of four main steps. The first was the development of an operational definition, deciding on which Facebook groups to include. Here, a restrictive definition was used focusing on active Facebook groups, public or private, that explicitly addressed the environment (as a primary concern) and that had an explicit connection to Sweden. In the next step, a diversity of search strategies was deployed, to identify all Facebook groups that matched this operational definition, with the objective to map the entire population, and not to sample it. These strategies consisted of: a series of online searches through keywords and key sites; a survey addressed to key actors related to the fields of study; an online search through the identified units' contacts and networks; a search in academic publications; an additional online search through keywords and in the identified unit's networks, until no more new units would be identified. Then, information about the 152 Facebook groups that were identified, was compiled in forms – called Mapping Index Cards (MICs). Finally, in the fourth step the information contained in the MICs was treated as data and analyzed using quantitative content analysis techniques, through the construction of variables and categories, and the coding of the data according to content analysis procedures (Krippendorff, 2004).

4 For a Facebook group to be defined as "active" there had to be a minimum of ten postings within the research period, and more than 25 postings in total from the moment the Facebook group was created until the end of the research period.

5 This mapping exercise was part of a larger project that also mapped blogs, YouTube channels, documentary films, televisions series, art projects and exhibitions.

The reporting of the data collected through the mapping research was anonymized and did not reveal the identity of the Facebook groups and their members. Furthermore, in the case of private Facebook groups, being granted access to the groups was a condition for further investigation and inclusion[6]. It shall be noted that the research team provided information regarding the research project and its purposes, when requesting permission to join the private Facebook groups.

For the purposes of this specific study that focuses on sustainability, 14 variables were created, related to three thematic clusters pertinent to the purposes of the study, namely intervention–nonintervention of humans in nature, ecocentrism–anthropocentrism and human–nature symbiotic–antagonistic relations. One of the article's authors, who was also the researcher leading the mapping project, coded all 152 Facebook group MICs, across the 14 variables. A second researcher independently coded 26% of the Facebook group MICs content, following specialized training, with the purpose of checking the inter-coder agreement levels. Krippendorff's alpha range for the 14 variables of this study was 0.795 – 1.000, and Cohen's kappa range was 0.793 – 1.000, which are considered of adequate reliability. According to Cohen, coefficients in the range of 0.61–0.80 indicate substantial agreement, and of 0.81–1.00 almost perfect agreement (McHugh, 2012). Also, according to Krippendorff (2004), a coefficient of 0.800 is considered adequate for inter-coder reliability, while one of 0.667 is the lowest admissible limit for tentative findings.

## THE 152 FACEBOOK GROUPS CONSTRUCTING SUSTAINABILITY IN SWEDEN

The 152 Facebook groups that focus on the environment in Sweden, which were identified through the mapping research, address diverse focal points including climate change, renewable energy, (pro and anti)-hunting, (pro and anti)-nuclear energy, different flora and fauna species, anti-mining, deforestation. They also focus on less recurrent issues and topics, such as climate change skepticism and denialism, rights of nature, opposing certain forms of renewable energy such as wind energy and hydropower. There are also some Facebook groups clearly combining certain party-political ideologies and ecological claims, and some other groups combining, among others, religion and ecology, antimilitarism and ecology, gender and ecology.

**6** 28 private Facebook groups, which were initially considered for examination, did not grant access to the mapping researchers and were not examined further. As a consequence, there might be an underrepresentation of private Facebook groups in the mapping results.

As previously mentioned, the 14 sustainability-related content analysis variables composed three thematic clusters pertaining to issues and discourses of sustainability, which emerged via an abductive approach from the analysis of the empirical data, guided by the existing literature on sustainability. This abductive process led to the identification of the three clusters of intervention–nonintervention, ecocentrism–anthropocentrism and human–nature symbiotic–antagonistic relations.

## INTERVENTION-NONINTERVENTION

As the quantitative content analysis results indicated (see Table 1), most of the Facebook groups (84%) contain references to human activity as being intrusive or destructive for the environment, and humans as perpetrators or as (the main) source of problems for the environment (82%). Such references communicate the idea that human activity (economic activity, urban living, fossil fuel dependency, excessive waste and pollution, deforestation, mining, etc.) is damaging the environment, causing changes or deformations to the environment, disturbing the balance of ecosystems, disturbing the living conditions of natural elements, leading to species extinction, global warming, and extreme climate change. Human activity is not seen, in most Facebook groups, as beneficial for the environment (90%), and human actions are not seen as contributing to solving environmental problems or improving environmental conditions.

Within this logic, the Facebook groups and their members communicate that there is a need to act in order to tackle environmental problems (84%). These references express the idea that action needs to be taken (and is not taken yet or not taken to an adequate degree) to produce change or to contribute to solutions to environmental problems. Such claims are presented as suggestions, recommendations, urges, appeals or demands for action that needs to be taken to improve the environmental conditions, or to stop further degradation or destruction of the environment. These claims also express the idea that nonintervention or human inactivity is damaging for the environment. In other words, they argue that humans not taking action to change the situation, or continuing the same practices and behavior, is damaging or destructive for the environment.

Some of the Facebook groups argue that nonintervention or human inactivity is positive or contributes to solutions to environmental problems (20%). In most cases, these groups argue for the benefits of leaving nature alone or of leaving wildlife undisturbed. These claims are expressed through the argument for the need to stop or significantly limit hunting, traveling by airplane or mining. Still, in most cases, human inactivity or nonintervention is considered negative, in light of the argument that people should act to prevent further environmental damage. In this vein, the idea that there is no need for humans to change habits

or lifestyles (continuing to hunt as they have till now, mine or use fossil fuels to the same extent), is not significantly present (3%).

**Table 1. Intervention–nonintervention**

| Does the Facebook group consider … | "Yes" | | "No" | | Total N |
|---|---|---|---|---|---|
| | n | per cent | n | per cent | |
| … human activity intrusive or destructive for the environment | 127 | 84% | 25 | 16% | 152 |
| … humans perpetrators or source of problems for the environment | 125 | 82% | 27 | 18% | 152 |
| … human activity beneficial for the environment | 15 | 10% | 137 | 90% | 152 |
| … it necessary to act to tackle environmental problems | 127 | 84% | 25 | 16% | 152 |
| … nonintervention or human inactivity positive (or contributing to solutions to environmental problems) | 31 | 20% | 121 | 80% | 152 |
| … it not necessary for humans to change habits or way of life | 5 | 3% | 147 | 97% | 152 |

Source: Authors

## ECOCENTRISM–ANTHROPOCENTRISM

In the context of the anthropocentric–ecocentric dimension (see Table 2), we can see that again a great majority of the Facebook groups express ecocentric ideas (92%), portraying humans and other species as equal to, or part of nature. In these cases, nature is seen as the shared home of plants, animals and humans. Ecocentric ideas are also communicated, e.g., through the need to take care of or preserve nature, and protect biodiversity, the ecosystems and (menaced) species. These arguments are based on the idea that humans have the responsibility to protect nature and act as stewards of nature's wellbeing. Ecocentric ideas also focus on ecology and (the need for) ecological ways of organizing life, economy and society at large. When we look a bit closer into how this ideology plays out in practice, we can see Facebook groups sometimes urging to change those models of organizing life that damage nature, and to shift to sustainable resources of energy that do not destroy the environment. There are also Facebook groups that do not employ explicitly critical positions towards human activity. These groups engage with ecocentric ideas through their exclusive or primary focus on the natural world, on wildlife, on ecosystems, and on the beauty and value of nature and its species. Ecocentric ideas are generally communicated in a positive or neutral light and are hardly ever critiqued (only in one case that was clearly arguing for the necessity of killing wolves, as they are seen as a menace to humans and to other species, and for the necessity of humans having more control over wild ecosystems so that they protect their own interests).

The identified Facebook groups frequently contain references to anthropocentric ideas (88%), which position humans as superior to nature, as having the right, or as being entitled to control nature, but in most cases these ideas are directly critiqued (in 89% of the 134 Facebook groups that mention anthropocentric ideas). The critique targets the practice of dominating the environment on the premises of human superiority or entitlement over nature, with humans imposing their conditions on nature. This critique also contains references indicating that nature is treated and exploited as a source of profit by humans, causing in the process significant or irreversible damage. It should be noted that anthropocentric and ecocentric references are not mutually exclusive. A Facebook group may be addressing both anthropocentric and ecocentric claims, by e.g., critiquing the anthropocentric and supporting or not critiquing the ecocentric ideas, or containing only either neutral and supportive or only critical references for both.

**Table 2. Ecocentrism–anthropocentrism**

| Does the Facebook group explicitly refer to … | "Yes" | | "No" | | Total N |
|---|---|---|---|---|---|
| | n | per cent | n | per cent | |
| … ecocentric ideas | 140 | 92% | 12 | 8% | 152 |
| (If so), is ecocentrism critiqued | 1 | 1% | 139 | 99% | 140 |
| … anthropocentric ideas | 134 | 88% | 18 | 12% | 152 |
| (If so), is anthropocentrism critiqued | 119 | 89% | 15 | 11% | 134 |

Source: Authors

## HUMAN–NATURE SYMBIOTIC–ANTAGONISTIC RELATIONS

Most Facebook groups contain references to symbiotic relations of humans and nature, or among different species (83%) (see Table 3). Symbiotic relations are characterized by recognition of (the need for) coexistence among species and elements of nature. They sometimes also relate to the recognition of dependence of humans on nature or of interdependence of humans and nature. Additionally, they may communicate the idea that nature is the place where 'we' (humans, animals, plants, etc.) live together. Symbiotic relations are not always seen as entirely harmonious, and tensions in these relations are not excluded. Symbiotic ideas are communicated in an either positive or neutral light, and they are not critiqued by the 126 Facebook groups that mention symbiotic relations.

Ideas about antagonistic relations of humans and nature, or among different species are also present in the Facebook groups studied (85%). Antagonistic relations are characterized by opposition, conflict, one side (humans, species) imposing its conditions on the other (nature, other species). In the great majority

of these cases, antagonistic relations are critiqued (95%), targeting the practice of humans imposing their conditions on nature or over other species, damaging nature, treating nature as an enemy or opponent to be controlled or dominated. Again, symbiotic and antagonistic references are not mutually exclusive and can co-exist.

**Table 3. Human–nature symbiotic–antagonistic relations**

| Does the Facebook group explicitly refer to … | "Yes" | | "No" | | Total N |
|---|---|---|---|---|---|
| | n | per cent | n | per cent | |
| … symbiotic relations of humans and nature, or among different species | 126 | 83% | 26 | 17% | 152 |
| (If so), are symbiotic relations critiqued | 0 | 0% | 126 | 100% | 126 |
| … antagonistic relations of humans and nature, or among different species | 129 | 85% | 23 | 15% | 152 |
| (If so), are antagonistic relations critiqued | 122 | 95% | 7 | 5% | 129 |

Source: Authors

## CLUSTER CO-OCCURRENCES

The three clusters' findings already indicate the strong (counterhegemonic) resistance against the hegemony of anthropocentrism. Most Facebook groups take ecocentric positions, pointing to human activity as being damaging on the one hand, and urging for action, to stop and reverse the destructive consequences of human activity for the environment, on the other. There are exceptions, though. A few Facebook groups diverge from these positions, addressing an anthropocentric discourse to sustainability that prioritizes human wellbeing, mostly in economic terms, and human freedom and entitlement, for example to hunt and use nature's resources. That discourse underplays or rejects any anthropogenic contribution to environmental degradation and destruction. Nevertheless, as Table 4 shows, there is a large segment of the Facebook groups (about two-thirds) that consistently and explicitly defend ecocentrism and synergetic relations, and which simultaneously (and equally explicitly) reject anthropocentrism and antagonistic relations.

**Table 4. Co-occurrences among ecocentrism–anthropocentrism and symbiotic–antagonistic relations**

| Score level | Definition | n | per cent |
|---|---|---|---|
| Score 4 | (1) Mentions anthropocentrism and critiques it;<br>(2) Mentions ecocentrism but does not critique it;<br>(3) Mentions symbiotic relations but does not critique them;<br>(4) Mentions antagonistic relations and critiques them | 104 | 68% |
| Score 3 | Fulfils three out of the four criteria mentioned above | 14 | 9% |
| Score 2 | Fulfils two out of the four criteria mentioned above | 19 | 13% |
| Score 1 | Fulfils one out of the four criteria mentioned above | 10 | 7% |
| Score 0 | Fulfils none of the four criteria mentioned above | 5 | 3% |
| **N** | | **152** | **100%** |

Source: Authors

## CONCLUSIONS

A large majority of the 152 Facebook groups that focus on the environment in Sweden, identified through our mapping research, take ecocentric positions towards sustainability, understanding humans' and nature's well-being as interconnected. This is related to an understanding of human-nature relations as mainly symbiotic, but still not eliminating conflict. This construction of ecocentrism aligns with the breadth of theoretical and action-oriented positions of ecocentrism, of deep ecology, natureculture, interdependence and non-hierarchization of species, that were presented in the earlier sections of the article. Arguably, these findings concern those Facebook groups that fit our strict mapping criteria, and those people that feel motivated enough to speak out about the environment on Facebook, while any individual responses on other Facebook pages (or on other platforms) are not included. Still, an almost overwhelming majority of these Facebook groups critique hegemonic anthropocentrism and defend a discursive-ideological repositioning. This is one main location of discursive struggle we can identify, as the conversations in these public spaces aim to reconfigure current political and economic practices.

There are, however, Facebook groups that diverge from these ecocentric (counterhegemonic) positions, by defending the hegemonic anthropocentric discourse to sustainability, that prioritizes human prosperity, seen as disconnected from nature's wellbeing. According to these groups, human-made interventions in nature to improve humans' lives are positive and should not be problematized. These approaches to sustainability echo anthropocentrism as it has been defined by scholars and elaborated upon earlier in the article.

They focus on humans' entitlement to control and dominate nature, on the hierarchization of species based on the degree to which they cover human needs, and on the apprehension of human-nature relations as antagonistic. This is the second location of discursive struggle, identified through the analysis, through which the anthropocentrically positioned Facebook groups aim to counter the main thrust of counterhegemonic Facebook groups (and other public spaces), and protect the status-quo.

These two main camps, the hegemonic–anthropocentric and the counter-hegemonic–ecocentric, maintain highly distinct, if not diametrically opposed, positions towards change. The first camp defends human intervention in the environment as positive, leading to progress and economic prosperity, while the second resists structural changes to the existing socio-economic and political establishment. The second camp regards human intervention in nature as undesired and destructive, and at the same time, argues for the need for structural changes to the capitalist-led model of development and economic growth. These positions reflect the struggle over the maintenance or change of the existing hegemonic paradigm over sustainability and human-nature relations.

While ideological diversity exists in these Facebook groups, and diverging positions are expressed both within the ecocentric and anthropocentric camp, we can still see a remarkable dominance of an ecocentric discourse and critique on hegemonic anthropocentrism within these public spaces. This points to the potential of social media to function as spaces where strong alternative positions are articulated, creating their own counter-hegemonies. Still, one needs to be careful to avoid generalizations and make claims regarding the findings' universality. Such possibilities are always context-specific. In this case, the publication platform (Facebook groups with a clear identity and not individual Facebook pages), the groups' orientation (primary focus on the environment), and the Swedish society, which, again avoiding generalizations, is considered sensitive towards the environment, all need to be taken into consideration in evaluating and interpreting the research findings. Hence, further research would be needed to evaluate the potential of social media to serve as spaces where counterhegemonic environmental positions are articulated, in other countries and in other contexts. Such research endeavors shall also take into consideration that social media do not function in a social vacuum, and that ideological and broader social struggles are not limited to one sphere, no matter how visible or privileged. At the same time, the strong dominance of the counterhegemonic positions towards sustainability and human-nature relations in the Swedish case brings us to the Habermasian argument that the translation of public sphere conversations, with all their incompleteness and omissions, to public policy, is not guaranteed. This non-rendering which becomes clear in environmental

issues indicates that the struggle to change the anthropocentric organization of (Swedish) society still has a long way to go.

## ACKNOWLEDGEMENTS

This research has been supported by Mistra, the Swedish Foundation for Strategic Environmental Research, through the research program Mistra Environmental Communication. The authors are grateful to the research assistants, for their contribution in data collection. Special thanks to Björn Eriksson and Daria Tsymbal, for their valuable assistance at different stages of the research project.

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