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DEMOCRACY AND ENVIRONMENT: PREDOMINANT ENVIRONMENTAL APPROACHES IN SCIENTIFIC DISCOURSES ON ENVIRONMENTAL, GREEN, ECOLOGICAL AND SUSTAINABLE DEMOCRACY

Democracia e Meio Ambiente: abordagens ambientais predominantes nos discursos científicos sobre democracia ambiental, verde, ecológica e sustentável

Democracia y Medio ambiente: enfoques ambientales predominantes en los discursos científicos sobre democracia ambiental, verde, ecológica y sostenible



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ABSTRACT

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Article History

This article aims to identify the predominant environmental approaches, from the analytical forms of Foladori and Sauvé, in scientific discourses that deals with the relationship between democracy and environment, considering the denominations environmental, green, ecological and sustainable democracy. For this, it was used a research of qualitative and descriptive approach, with corpus constituted by the method of integrative review, being considered 61 articles (scientific speeches) whose data were treated by the interpretative analysis and identification of environmental approaches. It was observed, at the end, that by uniting two constructs (democracy and environment) that have discursive marks of participation, human action and effects on ecological systems, the discourses on green, ecological, sustainable and environmental democracies in the analytical form of Foladori (2000) have a predominant anthropocentrist tendency with emphasis on Marxist thought, In the analytical form of Sauvé (2005) the discourses are predominant in recent currents, highlighting the critical, praxis, bioregionalist and sustainability approaches, by the very incidence of environmental discourses, which have gained strength since the 90's, in different actors and international debates about society-nature relations.

Keywords: Green democracy. Ecological democracy. Sustainable democracy. Environmental democracy. Environmental approaches.

RESUMO

O presente artigo tem como objetivo identificar as abordagens ambientais predominantes, a partir das formas analíticas de Foladori e Sauvé, em discursos científicos que trata da relação entre democracia e meio ambiente, considerando as denominações democracia ambiental, verde,





ecológica e sustentável. Para tanto utilizou-se da pesquisa de abordagem qualitativa e descritiva, com corpus constituído pelo método da revisão integrativa, sendo considerados 61 artigos (discursos científicos) cujos dados foram tratados pela análise interpretativa e identificação das abordagens ambientais. Observou-se, ao final, que por unir dois construtos (democracia e meio ambiente) que têm marcas discursivas de participação, ação humana e efeitos sobre os sistemas ecológicos, os discursos sobre as democracias verde, ecológica, sustentável e ambiental na forma analítica de Foladori (2000) têm tendência predominante antropocentrista com ênfase no pensamento marxista, ao considerar os problemas e crises ambientais decorrentes das produções capitalistas e na forma analítica de Sauvé (2005) os discursos são predominantes nas correntes recentes destacando-se as abordagens crítica, práxica, biorregionalista e da sustentabilidade, pela própria incidência de discursos ambientais, que ganharam força a partir da década de 90, em diferentes atores e debates internacionais sobre as relações sociedade-natureza.

Palavras-chave: Democracia verde. Democracia ecológica. Democracia sustentável. Democracia ambiental. Abordagens ambientais.

RESUMEN

Este artículo tiene como objetivo identificar los enfoques ambientales predominantes, a partir de las formas analíticas de Foladori y Sauvé, en los discursos científicos que tratan de la relación entre democracia y medio ambiente, considerando las denominaciones democracia ambiental, verde, ecológica y sostenible. Para eso, fue utilizada la pesquisa de abordaje cualitativo y descriptivo, con corpus constituido por el método de revisión integrativa, siendo considerados 61 artículos (discursos científicos) cuyos datos fueron tratados por el análisis interpretativo e identificación de abordajes ambientales. Al final, se observó que al unir dos constructos (democracia y medio ambiente) que tienen marcas discursivas de participación, acción humana y efectos sobre los sistemas ecológicos, los discursos sobre democracias verdes, ecológicas, sustentables y ambientales en la forma analítica de Foladori (2000) tienen una tendencia predominantemente antropocentrista con énfasis en el pensamiento marxista, En la forma analítica de Sauvé (2005) los discursos son predominantes en las corrientes recientes, destacándose los enfoques crítico, praxis, bioregionalista y de sustentabilidad, debido a la propia incidencia de los discursos ambientales, que han cobrado fuerza a partir de la década de 1990, en diferentes actores y debates internacionales sobre las relaciones sociedad-naturaleza.

Palabras clave: Democracia verde. Democracia ecológica. Democracia sostenible. Democracia ambiental. Enfoques ambientales.

1 INTRODUCTION

Democratic theory encompasses concepts and themes such as electoral processes, social movements, equality, civil rights and obligations, freedom, and participatory or deliberative governance. Therefore, the central idea of democracy is built on the inclusion of citizen participation in decision-making processes and the political system of a nation.

However, the realization or existence of democracy itself is a contested process, with no consensus on its conceptual conception. For this reason, democracy is understood to be plural and multifaceted, as there is no single type. According to Held (2006), there can be





various models or degrees of democracy, as established by Parker (1996): liberal democracy, participatory democracy, associative democracy, and multicultural democracy.

In addition to these models, there is the Habermasian deliberative democracy (HABERMAS, 1992), which incorporates the participation of civil society based on argumentation and discourse in decision-making. This model is based on the premise of communicative rationality and has the potential to provide more just and rational political decisions than representative means (DRYZEK, 1995; ESCRIHUELA, 2013; LEPORI, 2019; NIEMEYER, 2019).

The elements of democracy are related to the current environmental thinking strategy when considering the 2030 Agenda for Sustainable Development (ESTENSSORO, 2017; MORAIS, 2020), in which the global environmental scenario has taken various directions in the search for solutions to economic problems and environmental degradation.

In this context, social movements, the scientific community, governments, and economic sectors are social actors that participate in and contribute to debates in various events, conferences, and meetings that are part of the history of environmentalism. They produce declarations, agreements, and agendas that arise from the discourses and environmental commitments of these actors (BURSZTYN; BURSZTYN, 2013).

The environmental history from a political perspective, social movements, and environmentalism is much more complex than what is reported in documents, legislation, and major environmental conferences. However, events like the Stockholm Conference, Rio 92, Rio+10, or Rio+20 demonstrate a strong participation and influence of social and economic actors in the environmental issues debate.

Environmentalism, also known as the ecological movement or green movement, has developed based on various ideologies, visions, philosophies, and theoretical currents that influence and shape environmental thinking. Among these theoretical currents, we can mention Ecocentrism, Deep Ecology, and "The Greens," moderate environmentalism, technocentrism, Cornucopians, ecofeminism, among others. In addition, there are denominations such as social ecology, ecology of the poor, political ecology, ecodevelopment, green economy, degrowth, Buen Vivir, sustainable development, sustainability, among others, that are present in the discourses of environmental actors (ROCHA, 2006; ESTENSSORO, 2014, 2017; POTT, ESTRELA, 2017).

The scientific community has long been warning about environmental degradation issues and the effects of human actions on the environment through scientific discourse that incorporates various environmental approaches (LIMA, NEVES, RODRIGUES, 2016). Due

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to the fallible nature of scientific knowledge, scientific postulates and theories are constantly evolving, influencing and being influenced by discourses within their own communities.

The environmental issue present in the debates of political institutions, conferences, social movements, and academic circles is structured by different discourses ¹(political, everyday, educational, journalistic, corporate or business, scientific, etc.) permeated by theoretical approaches and ideologies that develop environmental thinking and underpin or explain the environmental problems.

Although all these discourses are relevant, this study focuses on scientific discourses. Traditional scientific discourses are discursive forms created and produced by scientists for the community of researchers, based on methods that generate results (laws), taking into account pre-established hypotheses that can be refuted by other scientific discourses. Thus, a scientific discourse is intended for the transfer of scientific information to an audience belonging to the same community, using a specific (prepared) language and/or interested in the subject (ADINOLFI, 2004; GLUSHKOVA, 2018).

In this way, based on the analytical forms of environmental thinking proposed by Foladori (2000) and the traditional and recent currents of environmental education presented by Sauvé (2005), the following question arises: What are the predominant environmental approaches in scientific discourses that explore the relationship between democracy and the environment?

Therefore, the objective of this study is to identify the predominant environmental approaches, based on the analytical forms of Foladori and Sauvé, in scientific discourses that address the relationship between democracy and the environment, considering the denominations environmental democracy, green democracy, ecological democracy, and sustainable democracy.

2 A THEORETICAL DISCUSSION ON ENVIRONMENTAL APPROACHES AND SCIENTIFIC DISCOURSES

Scientific discourse consists of the materialization of research results expressed in textual genres (textual, discursive, speech genres)² such as scientific articles, dissertations,

¹ Discourse is composed of language, utterance, text, and the dialogic communicative interaction of subjects. It is language in its concrete and living integrity, not as an object of linguistics, as discourse (and language as discourse) cannot be dissociated from its speakers (subjects) and their acts, social spheres, and guiding ideological values (BAKHTIN, 2016; VOLÓCHINOV, 2017) (Free translation).

² Textual genres are "the texts we encounter in our daily life with defined socio-communicative patterns determined by their composition, enunciative purposes, and style concretely realized by historical, social, institutional, and technological forces. Genres constitute an open list, they are empirical entities in





theses, books, reports, etc. In the process of discursive construction and scientific writing, theoretical approaches assist researchers in seeking information that gives meaning to their discourse.

In the field of environmental debate, various theoretical approaches are developed to explain the causes of the ecological crisis and present alternatives to overcome it or achieve sustainability. These approaches emphasize the human-nature relationship and are adopted by actors involved in environmental practices or discussions. They enable the emergence of proposals and/or solutions to the ecological crisis while constituting arguments in discourses, often influenced by political or ideological tendencies, offering different possibilities of interpretation.

The plurality of perspectives on environmental issues results in the existence of various scientific approaches expressed in typologies, currents, eco-ideologies, models, or other denominations that seek to explain different positions. Among the most significant analytical forms, the proposals of Foladori (2000) and Sauvé (2005) stand out, which simplify and systematize the environmental approaches that will be addressed below.

Foladori's analytical form (2000) presents a typology of environmental thinking (Table 01) based on ecological ethics from the principles of ecocentrism and anthropocentrism. The ethical starting point of ecocentrists is guided by two types of thought: deep ecology and the "greens" and neomalthusians. The anthropocentric point is constituted by technocentrists (subdivided into cornucopians and environmentalists) and Marxists.

Within ecocentric thinking, there is the approach of deep ecology, which is an ecophilosophy that advocates for the establishment of an intrinsic value in nature. Thus, the main focus of this approach is not on the economic, biological, or aesthetic advantages of nature for human society, but rather on the inherent value of nature itself. For this reason, this approach agrees with certain aspects of preservationist ideas.

The "greens" represent an approach represented by green parties and ecological movements such as Greenpeace. They advocate for the recognition of the intrinsic value of nature, the use of ecology as a science to explain society-nature relations, the existence of

communicative situations (...) Genres are stable written or oral textual forms" (MARCUSCHI, 2008, p. 55). For Bakhtin, genres of discourse are "relatively stable types of utterances, elaborated by specific fields of language use" (BAKHTIN, 2016, p. 158), classified into primary genres (numerous modalities of dialogues and communications carried out in everyday activities), secondary genres (proper literary genres, scientific research, and publishing genres), and the utterance as a dialogic unit. The produced utterances reflect the conditions and purposes of each field of human activity through their thematic content, language style, lexical, phraseological, grammatical resources, and compositional construction (BAKHTIN, 2016) (Free translation).



physical limits to development, and trust in liberal individualism as a means of societal transformation (FOLADORI, 2000).

Anthropocentric thinking is composed of the technocentrist approach, which is subdivided into cornucopians and moderate environmentalism. Cornucopians advocate for the overcoming of environmental problems through technical solutions and believe that the free market can resolve issues such as the consumption of non-renewable resources by replacing them with technology that eliminates the risks of environmental crises (FOLADORI; TAKS, 2004).

Moderate environmentalism, present in many governments, "acknowledges that there are problems between capitalist development and the environment, but they can be improved with specific policies" (FOLADORI, 2000, p. 32). This approach is based on scientific foundations of neoclassical economic theory and Keynesian postulates.

Another approach is Marxism, which understands that nature encompasses human society. In other words, nature includes human society because the society-nature relationship is dialectical and historical. When society transforms nature, it also transforms itself, differing from the positions of technocentrists and ecocentrists. Marxism also understands that social relations of production are oriented towards development, and therefore, behavior towards the environment is also influenced by these relations (FOLADORI, 2000).

Table 01 – Typology of Environmental Thinking

Departure Point	Types	Authors	Causes of the Environmental Crisis	Alternatives for "Sustainability"
Ecocentrists	Deep Ecology	Naess, N. 1973. "The shallow and the deep, longrange ecology movement. A summary". Inquiry, vol. 16	Anthropocentric ethics Industrial development	- Biospheric egalitarianism - Limit material and population growth - Small-scale technologies
	The Greens	1. Neolmalthusianos Ehrlich, P.Holdren,J. 1971. "Impact of population growth", Science, vol. 171 2. "Mainstream" Porrit, J, 1986, Seeing Green, Blackwell: Oxford	- Unlimited population growth and production oriented towards the production of superfluous goods - Indiscriminate use of non-renewable resources	- Slowing down population growth - Restraining luxury goods - Clean technologies - State control - Energy orientation towards the use of renewable sources



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Anthr opoc entris ts	Technoc entrists	Moderate Environmen talism	Pearce e Turner. 1995. Economía de los recursos naturales y del medio ambiente, Celeste Ediciones: Madrid	Erroneous policiesLack of knowledgeLack of state participation	- Economic policies and instruments to correct the market - Clean or green technologies
		Cornucopia ns	Simon, Julian; Kahn, Herman (ed.), 1984. The Resourceful Earth. A Response to Global 2000. Basil Blackwell: NewYork	There is no environmental crisis	- Free market without state participation - No restrictions on technology "The market will take care of it"
	Marxists		Enzensberger, Hans M. 1974. "A Critique of Political Ecology", New Left Review, No. 84	Causes of the contemporary crisis: Capitalist social relations (There are generic causes within human society).	Changes in capitalist relations of production: Means of production under the control of workers.

Source: Foladori (2000) (Translation)

Another analytical approach is proposed by researcher Sauvé (2005) through currents (Table 02), which, although directed towards Environmental Education (EE), encompass aspects of environmentalism in general. The author maps out 15 categories of currents, dividing them into traditional and recent ones. The traditional currents are subdivided into seven categories: Naturalist, conservationist, Resolutive, systemic, scientific, humanistic, and moral/ethical, while the recent currents are divided into eight categories: Holistic, bioregionalist, práxica (praxis-oriented), critical, feminist, ethnographic, eco-education, and sustainability.

Table 02 – Traditional and Recent Currents in Environmental Education

Table 02	Traditional and recent ourients in Environmental Education	
	TRADITIONAL CURRENTS	
Currents	Conception and Objective	
Naturalist	It centralizes the relationship between human beings and nature, meaning that education should take place through the natural environment, aiming to demonstrate how the natural environment functions and the learning relationships through cognitive, spiritual, and experimental means.	
Conservationist	Also known as "recursist," it is based on the principle of conserving natural resources, as well as fauna and flora. The aim is to educate in order to conserve, both individually and collectively.	
Resolutive	It has the idea of conservation and leads to action, aiming to bring about behavioral changes. The intention is to inform people about environmental issues, seeking to develop skills to address them.	
Systemic	Allows for the identification of different elements of the environmental system through a systemic analysis, thus providing a better understanding of the whole, aiming to comprehend the entirety of the environmental system.	
Scientific	Seeks to understand the causal aspects of environmental problems and the effects they may generate within the socio-environmental reality. Emphasis is placed on knowledge, perception, and experimentation, developing skills related to environmental sciences.	
Humanistic	The environment is understood as a way of life, with its natural and cultural dimensions, seeking to understand the environment, relate to it, comprehend its aspects, and develop feelings and values related to the environmental reality.	
Moral/Ethical	Environmental education also includes an ethical system that emphasizes the development of environmental values, where various perceptions consider the interaction with the	

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	environment as an ethical matter. Through morality, individuals develop socially desirable behaviors, construct values, and become protagonists of them.				
	RECENT CURRENTS				
Correntes	Conception and Objective				
Holistic	It seeks to involve all beings on the planet in a global manner, aiming to understand the world in an organic way and promote participatory engagement with the environment.				
Bioregionalist	It focuses on the development of Environmental Education specific to a particular region or locality, aiming for active community participation.				
Práxica	It highlights action as a means of learning, through the integration of action and reflection, known as praxis, which can lead to transformation in individuals and the environment.				
Critical	It emphasizes social realities and their implications for environmental problems, seeing education as a pathway for change and a method for reflecting on social dynamics. It is through critical perspectives that realities can be transformed.				
Feminist	It raises awareness of the relationship between women and nature, emphasizing the need for work focused on reconstructing this relationship and achieving harmony between men and women.				
Ethnographic	It emphasizes the need to adapt to the cultural realities of populations and draws inspirating from cultural movements that are closely connected to the natural environment. Even event and activity, whether it be hunting or the daily actions of a community, hold significance within its specific context.				
Eco-education	It presupposes that the essential goal is not only problem resolution, but also persona transformation through a relationship with nature, leading to tangible changes through responsible actions.				
Sustainability	It promotes the idea that economic development should be based on the preservation of natural resources to ensure the satisfaction of present and future generations' needs.				

Source: Lopes et al. (2020)

The currents proposed by Sauvé aim to map the practice in the educational field, understanding the educator's conception and how it defines or guides the objectives to be achieved in their practice, allowing us to understand their vision, whether it is traditional or recent. To do so, the author proposes the identification of four aspects: a) the conception of the environment; b) the main purpose of Environmental Education (EE); c) the approaches; and d) the models and approaches of EE practices within these currents. These currents can be adapted to identify scientific discourses related to environmental approaches, considering that they are not limited to the context of Environmental Education but rather to the conception of the environment and its discursive expression.

The aforementioned analytical frameworks are invested with a variety of major environmental classifications found in scientific discourses within the educational, political, and economic realms. They also possess relevant explanatory power as they are grounded in discussions about the relationship between environment and society. They address topics such as ecological ethics, environmental values, ecological economics, educational practices, and territorial studies, providing insights into the pursuit of constructing multidimensional knowledge about the relationship between democracy and the environment. Therefore, in this study, the analytical frameworks proposed by Foladori (2000) and Sauvé (2005) were chosen for use.



3 METHODOLOGY

The study was conducted using a qualitative and descriptive research approach, as it focuses on the analysis and interpretation of discourses related to environmental approaches. The choice of a qualitative approach is justified by the objective of identifying the different approaches present in scientific discourses on democracy and the environment (MARCONI; LAKATOS, 2021).

The study also employs the analysis of scientific discourse as a research approach, characterized as metadiscourse (metalinguage), as it involves analyzing and generating another discourse of the same nature (ADINOLFI, 2004; GLUSHKOVA, 2017).

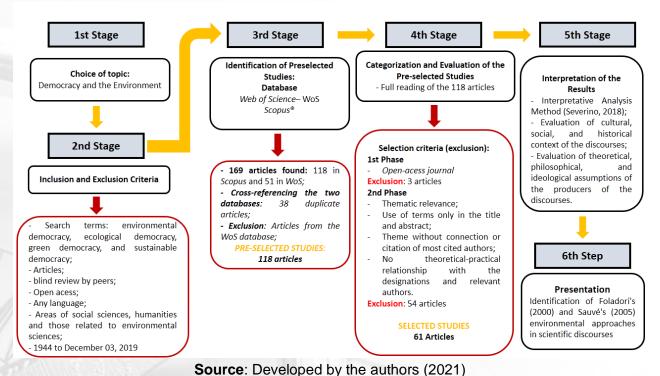
Thus, the research adopts the method of integrative literature review, which allows for the combination of data from theoretical and empirical literature, enabling the reviewer to conduct the process with different purposes. In the case of this study, the purpose is to identify the environmental approaches proposed through the analytical frameworks of Foladori (2000) and Sauvé (2005) in scientific discourses on green, ecological, sustainable, and environmental democracy.

Therefore, following the parameters of integrative literature review (BOTELHO, CUNHA; MACEDO, 2011), this study has a corpus of 61 scientific discourses (articles), specifically in the denominations of green democracy (6 discourses), ecological democracy (28 discourses), sustainable democracy (8 discourses), and environmental democracy (22 discourses).

The constitution and analysis of the corpus were adapted, as can be observed in the delineation explained in figure 01, following the six steps described by Botelho, Cunha and Macedo (2011): 1) identification of the theme; 2) establishment of criteria for inclusion and exclusion of studies; 3) identification of pre-selected and selected studies; 4) categorization and evaluation of pre-selected studies; 5) interpretation and results of selected studies; 6) presentation of identifications of environmental approaches.



Figure 01 – Design of corpus constitution and analysis



The articles (scientific discourses) were identified using search terms such as environmental democracy, ecological democracy, green democracy, and sustainable democracy in two major scientific literature databases: Web of Science - WoS (from Clarivate Analytics) and Scopus® (from Elsevier). Studies in the areas of social sciences, humanities, and environmental sciences, published between 1944 and December 3, 2019, were selected, resulting in 118 pre-selected scientific articles indicating thematic relevance and research problems.

In the process of categorization and evaluation of the 118 articles, three were excluded without complete reading as they were not available in Open Access mode, leaving 115 articles that were read in their entirety. Of these, 54 articles were excluded from the analysis and interpretation of scientific discourses due to their lack of thematic relevance, use of the denominations only in titles and abstracts, and lack of theoretical-practical relevance with the denominations indicated by the most cited and relevant authors.

The analysis and identification of scientific discourses in the environmental approaches of the two analytical frameworks were performed using the technique of interpretative analysis (SEVERINO, 2018). The interpretation of the discourses took into consideration the cultural, social, and historical contexts of text/discourse production, as well





as the theoretical, philosophical, and ideological assumptions of the discourse producers (MORAIS et al., 2021). After observing the predominance of scientific discourses, they were categorized according to the meanings and affinities of the analytical frameworks proposed by Foladori (2000) and Sauvé (2005).

4 RESULTS AND DISCUSSION: ENVIRONMENTAL APPROACHES IN ACADEMIC DISCOURSES

Rhetorical questions about whether environmental gains and protection can be guaranteed through democratic decision-making, or if democracy can ensure positive environmental (or sustainable) outcomes, reflect the arguments that support democracy as a model that produces beneficial results for the environment. In other words, these questions argue that democracy is the ideal model for environmental protection interests. Therefore, by deepening our understanding of the thought approaches that underpin scientific discourses on the relationship between democracy and the environment, we can find paths to comprehend the resulting meanings of this relationship.

However, scientific discourses face conceptual difficulties and controversies regarding green democracy and its variants. This is because the very connection between democracy and environmentalism (environment or sustainability) encounters resistance and tension among democratic means and procedures in meeting the majority's desires, even if those desires lead to non-green outcomes, or in meeting environmental ends, even if justifying the use of democratic or non-democratic means is necessary to achieve these proenvironmental outcomes. In other words, there is a debate about whether democracy could be sacrificed in favor of a green result (GOODIN, 1992; HOGGETT, 2001; HYSING, 2013; WONG, 2015; HAMMOND, 2019), which could lead to eco-authoritarianism (ZHU, ZHANG, RAN, & MOL, 2015).

Therefore, understanding the environmental approaches that underpin each discourse on the relationship between democracy and the environment will promote an understanding of the labels: green democracy, ecological democracy, sustainable democracy, and environmental democracy, along with their theoretical, practical, and operational meanings.



4.1 Discourse on Green Democracy

Green Democracy, from Foladori's perspective (2000), predominantly embraces the ethical standpoint of ecocentric thought, with an emphasis on the "green" approaches identified in the discourses of Dryzek (1995), Arias-Maldonado (2000, 2007), and Hoggett (2001). These approaches encompass the meanings and constructions associated with the green denomination, such as green politics and parties, progressively less anthropocentric policies, and the pursuit of a more equitable boundary between the human and natural environment. On the other hand, anthropocentric thought, emphasizing a technocentric approach of moderate environmentalism, is identified in the discourses of Hysing (2013) and Wong (2015), as they advocate for strengthening the role of experts (green authorities) and the normative idea of democratic models for integrating green concerns and values.

In Sauvé's proposed analytical framework (2005), the discourses of Dryzek (1995), Arias-Maldonado (2000, 2007), and Hoggett (2001) strongly align with recent critical approaches. They emphasize the social realities and environmental problems as fundamental elements in the discussion of the ideal theoretical model for achieving green democracy. These authors argue that green democracy cannot be achieved solely through conventional democratic structures and processes, but requires a critical analysis of power relations, economic systems, and social issues that influence environmental decision-making.

On the other hand, the discourses of Hysing (2013) and Wong (2015) exhibit an emphasis on the traditional-scientific approach. These authors highlight the significance of the environmental issue and scientific knowledge as central elements in attaining green gains and institutionalizing green democracy. They argue that science plays a crucial role in understanding environmental challenges and formulating policies and practices that promote environmental sustainability within the democratic context.

4.2 Discourse on Ecological Democracy

From Foladori's analytical perspective (2000), the discourses of Faber and McCarthy (2001), Gaard (2001), Lee (2002), Hunold (2005), Mitchell (2006a,b), Eckersley (2006, 2019), Sneddon and Fox (2008), Houser (2009), Kothari (2009, 2014a,b), Armiero and D'alisa (2012), Escrihuela (2013, 2015), Kothari, Demaria, and Acosta (2014), Pickering and



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Persson (2019), Niemeyer (2019), Takacs (2019), White (2019), Hammond (2019), and Lepori (2019) regarding ecological democracy have as their starting point the anthropocentric thought, predominantly from a "Marxist" perspective. These authors have discussed this approach, also known as ecological Marxism, ecossocialism, ecomarxism, or Marx's ecology (FOSTER, 2005, 2015), which seeks to establish a dialectic between society, nature, the production system, and consumption. These characteristics are considered crucial for understanding the systemic ecological crisis that emerges from capitalist social relations.

Furthermore, within Foladori's analytical perspective, other approaches can be identified in the scientific discourses. Dryzek's (1995) discourses encompass the ecocentric approach of the "greens," emphasizing the interdependence between humans and the environment. There is also an anthropocentric approach, with an emphasis on the technocentric strand of moderate environmentalism, found in the discourses of Whiteside, Boy, and Bourg (2010), Dryzek and Stevenson (2011), Whiteside (2013), Huh, Kim, and Kim (2018), which prioritize the use of technologies and environmental policies to mitigate environmental impacts.

In terms of Sauvé's analytical framework (2005), the discourses on ecological democracy by Faber and McCarthy (2001), Lee (2002), Hunold (2005), Eckersley (2006; 2019), Sneddon and Fox (2008), Armiero and D'alisa (2012), Escrihuela (2013, 2015), Takacs (2019), White (2019), and Lepori (2019) exhibit a prevalence of recent critical approaches, as they emphasize social realities and their implications for environmental issues.

The critical approach within Sauvé's framework aligns with the Marxist approach in Foladori's perspective, as both seek to understand the relationships between society, nature, and the production/consumption system, recognizing that the ecological crisis is intrinsically linked to capitalist social relations. These approaches emphasize the importance of a critical analysis of the social and economic structures that contribute to environmental degradation and advocate for profound transformations within the current system.

Additionally, characteristics of the Bioregionalism or Ecoregionalism approach were identified in the discourses of Mitchell (2006a,b), Kothari (2009), Kothari (2014a,b), and Kothari, Demaria, and Acosta (2014). This perspective encompasses a space based on environmental, social, and cultural systems, recognizing that all dynamic relationships within that space contribute to the construction of a "place of life" sentiment and history. Therefore,





this approach argues that "human societies should be decentralized, and political boundaries should reflect biogeographical locations" (ROCHA, 2006, p. 65).

Other approaches identified within Sauvé's analytical framework, specifically within recent currents, include the praxical approaches in the discourses of Dryzek (1995) and Hammond (2019), ecofeminism in Gaard's discourse (2001), eco-education in Houser's discourse (2009), sustainability in the discourses of Whiteside, Boy, and Bourg (2010) and Whiteside (2013), and systems thinking in the discourses of Pickering and Persson (2019) and Niemeyer (2019). Dryzek and Stevenson's (2011) and Huh, Kim, and Kim's (2018) discourses align with the scientific approach within the traditional current of Sauvé's analytical framework.

4.3 Discourse on Sustainable Democracy

Discourses on sustainable democracy, in Foladori's analytical framework (2000), stem from anthropocentric thought, with a uniform predominance of Marxist approaches, understanding that the crisis of sustainable development originates from the production and consumption system, which emerges from social relations and the capitalist system.

From Sauvé's analytical perspective (2005), discourses on sustainable democracy by Bangura (1992), Qadir, Clapham, and Gills (1993), Millett (1993), Jeong (1998), Gbadamosi and Adewoye (2010) exhibit a prevalence within recent sustainability currents.

The sustainability approach presupposes that the pursuit of economic development takes into account the incorporation of social and environmental dimensions as fundamental elements in its constitution (BURSZTYN; BURSZTYN, 2013). The discourses emphasize the pursuit of reconciling economic activities with social and environmental justice, considering the authors' recognition of asymmetries between these dimensions.

Other observed approaches include ecofeminism in the discourses of Gberevbie and Oviasogie (2013) and Naples (2013), addressing the issue of women's participation in public governance, and intersectional feminist praxis as a strategy for sustainable democracy.

Lastly, the discourse by Lues (2014) also highlights the approach of eco-education, advocating for the importance of citizens' education about democracy and for democracy as fundamental requirements of sustainable democracy.



4.4 Discourse on Environmental Democracy

From Foladori's analytical perspective (2000), discourses on environmental democracy by Lynn and Kartez (1994), Rodenhoff (2002), Van Den Burg (2004), Crossen and Niessen (2007), Ramlogan (2010), Aly and Amer (2011), Zhu, Zhang, Ran, and Mol (2015), Antal (2015), Etemire (2016), Vanhala (2018), Castro-Buitrago and Valencia (2018), Szulecki (2018), Gellers and Jeffords (2018), and Giupponi (2019) are predominantly anthropocentric, with an emphasis on the technocentric approach of moderate environmentalism. This approach considers human production as necessary but recognizes the problems it causes to the environment. The discussion focuses on technical corrections in the production process that can reduce the negative impact on the environment.

On the other hand, discourses by Wilson (2006), Lawrence, Paudel, Barnes, and Malla (2006), Lenzi (2009), Kiss (2014), Tadaki, Sinner, and Chan (2017), Arora-Jonsson (2017), Takacs (2019), and Eckersley (2019) incorporate elements of the Marxist approach. These authors start from the understanding that the environmental crisis arises from capitalist social relations.

In Sauvé's classification (2005), discourses on ecological democracy have stood out in recent currents of the praxic approach, with contributions from authors such as Lynn and Kartez (1994), Rodenhoff (2002), Van Den Burg (2004), Lawrence, Paudel, Barnes, and Malla (2006), Crossen and Niessen (2007), Ramlogan (2010), Aly and Amer (2011), Antal (2015), Etemire (2016), Vanhala (2018), Gellers and Jeffords (2018), and Giupponi (2019). These discourses emphasize action as a means of transforming individuals and the environment, valuing active and engaged participation of individuals in the search for environmental and social solutions.

Discourses with characteristics of the critical approach were also identified, represented by authors such as Wilson (2006), Kiss (2014), Zhu, Zhang, Ran, and Mol (2015), Castro-Buitrago and Valencia (2018), Szulecki (2018), Takacs (2019), and Eckersley (2019). These approaches question the structures and systems that have led to the environmental crisis and emphasize the need for profound transformations to achieve environmental democracy.

Additionally, discourses representing the moral/ethical approach were identified, represented by Tadaki, Sinner, and Chan (2017), ecofeminism represented by Arora-





Jonsson (2017), sustainability represented by Lenzi (2009), and the scientific approach represented by Takacs (2019).

These different environmental approaches contribute to a broader understanding of the relationship between democracy and the environment, highlighting the importance of an integrated approach to address socio-environmental challenges.

4.5 Predominant Environmental Approaches in Scientific Discourses

Before presenting the identification and analysis of the predominant environmental approaches in scientific discourses on the relationship between democracy and the environment, it is important to note that discourse construction is not unanimous and exclusive. Therefore, it is possible to identify more than one approach within a discourse, as these approaches are not mutually exclusive, exhaustive, or separate. On the contrary, they constitute complex, interconnected, and complementary environmental approaches and perspectives.

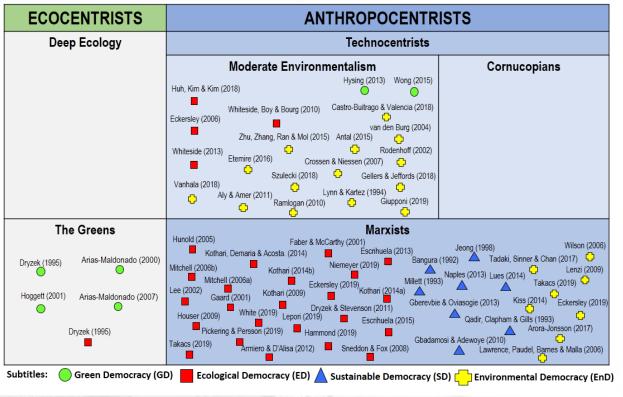
Thus, the identification was carried out based on recurring views in scientists' discourses, taking into account the two environmental analytical frameworks proposed by Foladori (2000) and Sauvé (2005), represented in figures 03 and 04, respectively. These figures present the identification of each approach and the denomination of democracy (green, ecological, sustainable, and environmental) through colors and geometric shapes.

Green democracy is represented by a green circle, ecological democracy by a red square, sustainable democracy by a blue triangle, and environmental democracy by a yellow cross.

In Foladori's (2000) environmental approach, represented in figure 02, there is a predominant tendency in discourses towards the anthropocentric theory, especially the Marxist approach. This occurs because, in general, environmental issues and crises are understood in these discourses as implications of capitalist social relations.

SUSTAINABLE DEMOCRACY

Figure 02 – Identification of environmental approaches in Foladori's analytical framework



Source: Developed by the authors (2021).

Discourses on green democracy demonstrate a strong identification with the ecocentric perspective, incorporating elements of green political theory and "green" thinking. Within this denomination, it is possible to identify discourses that also bear anthropocentric characteristics of moderate environmentalism. This recognition stems from acknowledging the urgent need to address environmental problems highlighted by ecologists, while understanding that curbing economic growth could lead to unequal outcomes for developed and developing countries. Therefore, the perspective of green democracy focuses on the ideals of sustainable development.

On the other hand, ecological democracy features a discourse with elements of anthropocentric thinking, emphasizing Marxist lines of thought. Within this denomination, there is a focus on the agency of environmental justice movements, valuing the role of social actors and civil society, and including non-human beings in democratic decision-making processes. Ecological democracy sees human society as an integral part of nature, in opposition to the idea of separation. Consequently, it discusses the impacts of capitalist production and resulting ecological problems on both human and non-human communities in local, transboundary, and global contexts.



DEMOCRACY AND ENVIRONMENT: PREDOMINANT ENVIRONMENTAL APPROACHES IN SCIENTIFIC DISCOURSES ON ENVIRONMENTAL, GREEN, ECOLOGICAL AND SUSTAINABLE DEMOCRACY

Sustainable democracy also presents a discourse rooted in the Marxist anthropocentric perspective. This denomination encompasses discourses that delve into political and economic discussions, as well as issues related to social and gender inequalities in countries with hybrid regimes, "imperfect" democracies, or semi-democracies (NÓBREGA JR, 2010). This context is particularly observed in regions of Africa and Latin America, where countries have recently undergone authoritarian or militarized governments. In these cases, the state plays a central role, and society is considered as a supporting actor in democratic processes. These countries exhibit low levels of political participation, limited individual rights and guarantees, weak governance, and a significant presence of militarization in public security, seen as an institution that safeguards the democratic regime.

On the other hand, environmental democracy features a discourse strongly identified with the anthropocentric perspective, particularly moderate environmentalism. Its construction is focused on procedural rights through command and control environmental instruments and policies. These discourses are based on established norms, such as the Aarhus Convention and the Escazú Agreement, which aim to ensure access to participation, information, and justice in environmental matters.

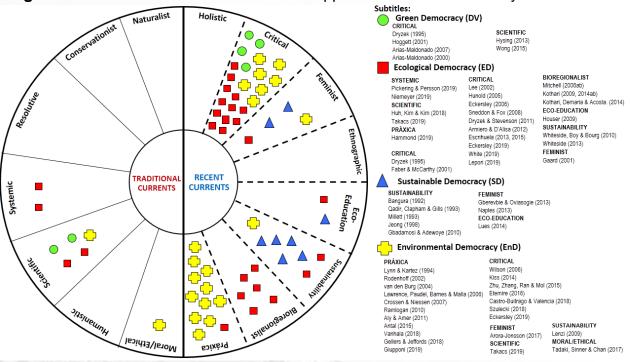
In Sauvé's analytical framework (2005), figure 03, one can observe a trend in discourses on democracy and the environment belonging to recent environmental currents that have gained prominence since the 1990s. These currents encompass critical, praxical, sustainability, bioregionalist, feminist, and eco-education approaches, and these scientific discourses have been produced in the last three decades.

Green democracy presents discourses that bear the characteristics of critical and scientific currents. Its construction is based on the political viewpoint and the thinking of "greens," who question social dynamics and power relations, challenging hegemonic discourses and commonplaces, and seeking transformations in the environmental reality. Additionally, this construct also incorporates elements of the traditional scientific current, emphasizing the pursuit of solutions to environmental problems through the rigor of environmental sciences.



DEMOCRACY AND ENVIRONMENT: PREDOMINANT ENVIRONMENTAL APPROACHES IN SCIENTIFIC DISCOURSES ON ENVIRONMENTAL, GREEN, ECOLOGICAL AND SUSTAINABLE DEMOCRACY

Figure 03 – Identification of environmental approaches in Sauvé's analytical framework



Source: Developed by the authors (2021)

The discourse of ecological democracy primarily focuses on two currents: the critical and the bioregionalist. This construct is built based on social movements and struggles for environmental justice, encompassing topics such as ecofeminism (environmental sexism), environmental racism, environmental classism, as well as ideal models of green states. Critical theory is present in these discourses, questioning and identifying the intentions, power positions, arguments, values, decisions, and actions of different actors in the search for solutions to problems resulting from environmental injustices. The bioregionalist current also marks the discourse of ecological democracy by discussing ecological democratic models or emerging (or re-emerging) well-being alternatives at the local or regional level, valuing these spaces as sites for social and environmental development.

The discourse of sustainable democracy is predominantly linked to the recent sustainability current. In this construct, sustainability is viewed in its social, political, and economic dimensions, while the environmental dimension is considered secondary in the discourses. This occurs due to divergences in perceptions of historical, cultural, and structural conditions that hinder the consolidation and survival of participatory democratic systems, especially in countries with emerging democracies, such as those in Africa and Latin America.

SUSTAINABLE DEMOCRACY





Finally, the discourse on environmental democracy primarily emphasizes the praxical and critical currents. This construct places emphasis on procedural or process rights, assigning the promotion of environmental democracy to the state and constitutions through discursive instruments and participatory mechanisms. The praxical current describes learning and changes in individuals and the environment that occur through action. Thus, participation involving multiple actors and instruments promotes transformations in agents, the actors involved, and the environment, representing a pathway to the solution of social and environmental problems.

5 CONCLUSION

The relationship between democracy and the environment presents two contrasting viewpoints in scientific discourses. Firstly, there is a limitation in combining the concept of democracy, with its procedural aspects, with that of the environment, which has substantial characteristics. Secondly, the evidence indicates that there are no quarantees or proofs that categorically affirm that this union will result in positive environmental decisions, policies, or gains. However, the discourses suggest that the connection between democracy and the environment offers potential for the implementation of spaces and instruments that encourage and legitimize more democratic environmental decision-making.

It is observed that each denomination - green, ecological, sustainable, and environmental democracy - plays a specific role but is not exclusive, as they complement each other in their contributions to thinking about democratic solutions to environmental problems. This is because environmental issues are complex and approached differently in various regions, considering the different conceptualizations, debates, exercises, intrinsic characteristics, and specific demands of each region regarding these denominations.

It is important to note that the focus of these denominations also depends on the discourses in question. The discussion on environmental democracy is more representative in countries where democratic regimes are already consolidated, unlike sustainable democracy, whose discourses originate from countries that are still seeking the consolidation of the democratic process.

Therefore, it is challenging to address the issue of the environment when decisionmaking is centralized in authoritarian regimes, as it is not a collective construction but rather monocratic decisions about the environment. This explains the need to establish and strengthen green, ecological, and environmental democracies in the Earth system because





the lack of democracy hampers thinking and debate on environmental issues, as is the case with the construct of sustainable democracy. Civil society cannot act as citizens or reflect on political issues, let alone environmental issues, when the decision-making power and participation of society are limited and insignificant.

Thus, it is understood that the constructs of green, ecological, and environmental democracies are fundamental to expanding active participation in democratic regimes, enabling more effective participation in environmental issues. Therefore, by possessing a political culture favorable to strengthening democracy in an environmental context, space is opened up to think and debate other topics such as green party politics, sustainability, ecology, environmental policies, planetary boundaries, energy democracy, among others.

It is evident that this relationship between democracy and the environment encompasses and connects ecological, economic, social, political, cultural, and educational issues, which can only be sustained in democratic regimes. Therefore, social participation, being the very object of democracy, is the cross-cutting element in the four denominations, and deliberative democracy is one of the most prominent theoretical perspectives to address these democratic models as it can ensure procedural values while increasing the value attributed by participants to shared substantive interests such as environmental issues.

Thus, by combining two concepts - democracy and the environment - which have discursive marks of human participation and action and effects on ecological systems, the discourses on green, ecological, sustainable, and environmental democracies in the analytical form of Foladori (2000) tend to have a predominantly anthropocentric perspective with an emphasis on Marxist thought, considering the problems and crises resulting from capitalist productions. In the analytical form of Sauvé (2005), these discourses predominate in recent currents, highlighting critical, praxical, bioregionalist, and sustainability approaches, due to the increase and strengthening of environmental discourses in different actors and international debates on society-nature issues and relations, especially since the 1990s.

Finally, it is important to mention the limitations of this research, which are common in integrative review studies. They result from the adopted methodological choices, such as the selection of scientific articles as the primary genre and the specific selection of databases, which may exclude other scientific genres such as monographs, dissertations, and theses that were not included in the analysis. However, these limitations do not compromise the contributions of this article, and it is suggested that future studies on the topic expand the inclusion of other scientific textual genres and databases.



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