



Public beliefs and perceptions related to ecofascism

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ABSTRACT: The concept of ecofascism describes the distortion of ecology for the purpose of gaining greater and wider audience, popularising ideologies and fulfilling xenophobic and nationalistic goals by regimes such as the far-right agenda and the radical ecological groups. This study investigates the issue of ecofascism in Europe, using the example of Greece, by examining the views of the citizens of Greece on the links between the political parties and ecology and environment. A survey of 600 people was conducted in Greece, using questionnaires on ecofascism, politics and ecological issues. The survey showed that the sample has, in general, humanistic, democratic and quite left-wing ideals. However, some of the respondents indicated nationalistic, even fascist, trends. Because the current socio-economic and political conditions in Europe can fuel an outbreak of fascism, we should be very cautious about these findings, due to the growing impact of far-right ideas on society. Some aspects of the ecofascist rhetoric still continue to mislead, revealing the sly and worrying penetration of fascism in Greek society on the pretext of the protection of the Greek environment.

KEY WORDS: Ecofascism · Fascist ecology · Ecology · Nature conservation · Environmental concerns · Public opinion · Greece

1. INTRODUCTION

Human interaction with the environment is a complex issue that highly concerns the scientific community. Various studies have been conducted related to the investigation of the human–environment relationship (Drimili & Zervas 2018, Hori et al. 2019, Drimili et al. 2020a, Gareiou & Zervas 2021) as well as the involvement of people in specific environmental issues (Papoulis et al. 2015, Vogiatzi et al. 2018, Drimili et al. 2019, 2020b). The environmental crisis is also an important issue that concerns many people who believe that nature conservation should be a priority and that people should protect the planet for future generations. From time to time, attempts have been made to approach environmental issues by various groups, such as environmental groups, social groups, political groups, etc. Regarding political groups, the approach to environmental problems

does not always have a democratic character. Ecological ideals have a history of distortion and have been adopted by various groups with fascist ideals (Biehl & Staudenmaier 2011).

More specifically, ecofascism is not a modern concept, but a concept with a rich and multifaceted past (Protopapadakis 2014). Two interpretations of ecofascism can be discerned. In the first one, ecofascism is an autonomous tendency which stresses the moral priority and pre-eminence of the ecosphere, while displaying authoritarian characteristics, e.g. misanthropy, mysticism, irrationalism, denial of democracy and human rights, hostility to technology, industrialization and modernization, etc. (Zimmerman 1995, Protopapadakis 2010, Biehl & Staudenmaier 2011). Ecofascism meets existing theoretical needs and it has only one goal, which is the obligation of moral persons to submit their action and existence to the interests of the wider community, the ecosphere (Pro-

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topapadakis 2014). In the second one, ecofascism is a political movement that promotes its authoritarian political views under the guise of nature protection (Toulouse & Zimmerman 2016). This approach corresponds to the preoccupation with environmental issues of the first fascist movements, such as the National Socialist German Workers' Party (National Sozialistische Deutsche Arbeiterpartei: NSDAP) in Germany and the National Fascist Party (Partito Nazionale Fascista: PNF) in Italy, during the interwar years (Caiani et al. 2012), but also in more recent movements. However, independently of the approach taken into consideration, the results of the application of ecofascism are similar in both cases.

In recent years there has been an increase in far-right ideas in Europe. Despite this increase, the impact of ecofascist views on communities has not been adequately addressed in the published literature, as very few studies deal with this issue (Shanaah et al. 2023). The present paper aims to help fill this gap, examining ecofascism as a political movement (second approach) and studying the way it promotes its political views in relation to the protection of nature. This work is applied in Greece.

The purpose of this paper is to study the views of the citizens of Greece regarding the association of political parties with ecology and to investigate the existence of ecofascist views, in order to deal in a timely manner with possible nationalist or fascist tendencies in society appearing under the pretext of protecting the environment. In a first stage, this paper briefly presents the hijacking of ecology by some of the contemporary European far-right political parties, with a specific emphasis on the Greek case. In the second part, it examines the common beliefs and perceptions regarding ecofascism, politics and ecological matters that emerged from a survey conducted in Athens, the capital of Greece.

As far as we know, this paper is a first attempt to approach the concept of ecofascism in Greece and, moreover, the first to use a questionnaire to record the opinions of citizens in this field.

2. A BRIEF REVIEW OF EUROPEAN ECOFASCISM

Examining the historical appearance of ecofascism, we can see that the *völkisch* movement appeared in Germany in the 19th century, treating nature as a poetic principle and force that creates and shapes man and, consequently, precedes him logically, ontologically and evaluatively (Protopapadakis 2014, Rueda 2020). In the early 20th century and around

1920, the ideology of Nazism was based on this theory; it also combined ecological practices with racial and nationalist ideas (Riechers 1996, Uekötter 2007, Biehl & Staudenmaier 2011). According to Brüggermeier et al. (2005), potential interconnections between the ecological practices of the Nazis and their dark political views, in terms of legislation, policies, institutions, persons, etc., can be detected. However, Stephens (2001) concluded that no primary link between Nazism and ecologism existed; whatever green actions were implemented by the Nazis were detached from green thought and were of minimal importance.

On the other hand, in fascist Italy between 1923 and 1943, the nationalization of Italian nature and the incorporation of nature into Italy's national narratives were used by the Fascists as an argument for their environmental concerns (Longobardi 1936, Tassinari 1939, Graf von Hardenberg 2010, Armiero & Graf von Hardenberg 2013).

More recently, since the late 20th century, several far-right political parties have gained increased support against traditional political forces. Typical examples constitute the British National Party (BNP, UK), the Danish People's Party (DPP, Denmark), Forza Nuova and Alternativ Sociale (Italy) as well as the 'New Right' in France and Germany (Biehl & Staudenmaier 2011). It must be mentioned that these tendencies generally do not resemble the fascist regimes of 1930 to 1940 and are more complex (Lubarda 2020).

However, there has been a rapid change during recent years, and especially after the economic crisis of 2008 to 2010. In the early summer of 2023 in many countries of the EU (which can be characterized as critical due to their size or their population), like Finland, Italy, Sweden, Hungary and Poland, massive parties with extreme, anti-immigrant and xenophobic right-wing positions were participating as coalition members or leading governments. In other, equally pivotal, countries like Germany and Spain, the extreme right, like the Alternative for Germany (AfD) or Vox, which are discreetly flirting with Nazism and Francoism, gained ground in polls, as well as in many regional elections, surpassing marginal influence and single digit percentages, and claiming a dynamic presence at the front stage of the political spectrum. Particularly in France, the far-right party of Rassemblement National (with, initially, Jean-Marie and then Marine Le Pen) has been found in the centre of the political scene for at least 3 decades, setting a significant part of the political agenda in this country.

In all cases, however, these parties act under the guise of restoring harmony between nation and nature, modernizing far-right ideology and using dark practices and views, thus showing the true face of fascism (Zimmerman 1995). Seeking to gain general public acceptance, these groups have developed a quite progressive, ecological, and even leftist, discourse, while identifying themselves as the only 'ecological' alternative to the degradation of the environment and climate change. However, under this 'green, even leftist' cloak, one can see the *völkisch* rhetoric of the past. First, through their argument that progress, technology and science caused the environmental problem, they reduce national cultures and exterminate the human spirit (Biehl & Staudenmaier 2011, Protopapadakis 2014, Forchtner 2019a,b). Additionally, they hide their racism and xenophobia behind the motto 'right to difference', implying each nation's right to maintain its own ethnic/cultural identity against globalization, interpreted as Americanization, homogeneity and consumerism (Park 2013). Ultimately, on the pretext of maintaining cultural identity, modern far-right groups promote a 'radical ethnic pluralism', in other words 'cultures' sovereignty over their environments', transforming Europe into a 'Europe of Fatherlands' with autonomy for their people (Biehl & Staudenmaier 2011). In fact, it is argued that both cultural and national diversity are not only shaped, but also determined by the distinctive features of the particular ecosystem to which they belong. Furthermore, these groups draw on the ideas of neo-Malthusianism, claiming that overpopulation caused by the Third World puts a great strain on the ecosystem's carrying capacity. As a consequence, strict migration control on environmental grounds is demanded (Pepper 1985). Finally, in order to justify anti-immigration policies, several arguments are used for 'national' or 'social' security (employment, control of local resources, etc.), or even for climate and environmental justice (reduction of greenhouse gas emissions due to reduced global transport); economic localism is prioritized (local production through local processes, and networks for local consumption) (Park 2013, Champion 2021).

It can therefore be observed that with the 'goodness' of the environment, the political parties, regardless of their political orientation, act based on their own interests. According to the taxonomy of the political spectrum, we can classify at least 5 different political orientations that are structured around the current environmental issue: eco-conservatism, eco-liberalism, eco-anarchism, eco-socialism and eco-republicanism. Many current neo-fascist views on

ecology are derived from the eco-conservatism ideological pool, which highlights the importance of tradition, of continuity, etc. (Audier 2019). In other texts, which do not represent the dominant notion of the term, 'ecofascism' refers to a catastrophic climate crisis which is turned into a pretext for authoritarian forces to seize control as a means of restoring some kind of climate order (Klein 2014).

In sum, the positions of the political far-right environmental agenda are perverted into nationalistic and racial beliefs against immigrants, 'foreigners' and overpopulation, on the pretext of a mystical relationship between a region's traditions and language and the 'ancestral' landscape (Biehl & Staudenmaier 2011, Park 2013, Darwish 2021).

3. GREEK ECOFASCISM

Until very recently, Greek ecofascism has been mainly represented by the far-right political party Golden Dawn (GD), which appeared in the 1980s and became active in politics in 1993 (Ellinas 2013). Since 2007, the GD has shown its green side by talking about 'human race and ecological consciousness' and has aimed to create 'eco-fascist networks' to attract a wider population, using the same eco-fascist rhetoric as its predecessors. However, in the beginning, the members of this party were involved in several violent activities. Later, in the 2000s and 2010s, the fascist GD party began running in European and Greek elections (Ellinas 2014). During the years 2008 to 2012, the economic crisis in Greece led to the loss of public confidence in the major political parties. In the 2012 elections, the GD took advantage of this critical situation and succeeded in becoming the third party in terms of number of votes (Samaras 2020).

Following the pattern of the NSDAP, the 'anti-capitalism' of the GD is integrated with a strongly racial, imperialistic and ostensibly 'naturalistic' framework, which extols nature, social Darwinism and irrationalism. The GD emphasizes the undoubted environmental problems, such as climate change, pollution, etc., in order to stress that only a national-socialist dictatorship could successfully deal with them. According to the GD, the environmental degradation is caused by economic growth (implying a Jewish economic dominance), overpopulation (except for the white race) and the politics that originate from communism/socialism and neo-liberalism (GD 1986, 1987, 1989).

In the view of the GD, ecology, rural romanticism and hostility to urbanism are intersected. Rural and racial

rhetoric are inextricably linked, because, for the GD, the healthy peasant embodies racial purity and the nation's ideals, in contrast to the perverted 'Western' urban individual. Furthermore, it implements environmental activities, such as forest conservation, and the distribution and selling of Greek agricultural products, etc., which are always deeply embedded with a flavour of nationalism, praising the Greek sacred land. The GD aims to keep the land (i.e. 'Fatherland') 'pure and clear' of other ethnic minorities that 'contaminate' it. Additionally, the GD has developed an ecological spiritualism, in which nature becomes 'Gaia' by attributing sanctification, while humans, as part of it, must act according to its 'laws' (GD 1987). The GD invokes 'nature laws' or 'natural order' in order to justify a hierarchical structure and an 'organic' order that should govern societal relationships. Finally, considerable penetration into sporting activities has been observed, particularly into those that combine extreme physical exercise with ancient Greek discourses (e.g. Marathon, the course of 42 km from Marathon to Athens, Spartathlon, the course of 246 km from Athens to Sparta in less than 36 h, etc.), or those regarded as an outlet for pent-up feelings, such as violence and aggression (e.g. kick-boxing), as well as recreational activities like mountaineering/climbing etc., that mix direct nature contact with military culture and training (GD 1986, 1987, 1989).

With the above wording, the GD managed to attract enraged Greek citizens until 2017. After that, the leaders of the GD lost their popularity and several of them were imprisoned, as the GD was considered by the court to be a criminal organization after the crimes committed by its members. This fact resulted in the 2019 elections, when the GD disappointed its voters and lost its seats in the Greek parliament. However, since that year, several individual efforts have been made to attract the Greek people by similar organizations with eco-fascist views (Samaras 2020).

In addition, in the era of the COVID-19 pandemic, the application of lockdown in Greece destabilized the lives of people and affected their social activities, their emotional state, their daily activities, their working conditions and their mobility, as well as their perceptions of the urban space and urban policies in various ways (Vatavali et al. 2020). It is also noteworthy that the appearance of the COVID-19 pandemic was one cause for the significant re-emergence of ecofascism. The rationale of today's ecofascists is that the pandemic led to the death and suffering of large numbers of people, and people were also locked in their homes, but, at the same time, carbon dioxide

emissions and air pollution were reduced. Thus, these are dark, authoritarian and fascist ideologies under the guise of good for the environment (Ladas 2020). The opinions of today's ecofascists found many supporters, mainly citizens who were negatively affected by the continuous lockdowns.

Concretely, in the June 2023 elections in Greece, the parties on the extreme right that promoted an anti-vaccination and anti-immigration rhetoric based on tradition and the continuity of the race, gained more than 14% of the votes. One of them had the open support of the imprisoned leader of the criminal gang, according to judicial judgment, of the GD. The re-appearance of fascism in Greece highlights its roots in modern Greek history, since Nazi occupation, as well as the multi-dimensional support it earns, often publicly, from several economic centres and/or media.

4. MATERIALS AND METHODS

4.1. Questionnaire

In order to study the opinions of the citizens of Greece regarding the association of political parties with ecology, and to investigate the existence of eco-fascist views, a structured questionnaire, addressed to the residents of Athens, the capital of Greece, was used. The questionnaire outlined the main 'green' activities of the German and Italian regimes during the interwar period and summarizes the major environmental positions of the modern ultra-right wing. It comprised 3 sections: ecology, politics and socio-demographic information. More specifically, the first part included a series of questions to explore respondents' environmental awareness and statements that express indirectly fascist ideas under the pretext of ecology and conservation of the Greek landscape and culture. The second part aimed to correlate the respondents' political and ecological culture, to draw conclusions about the effectiveness of the Greek state in addressing environmental problems and to investigate the respondents' consent to ecofascist positions of the contemporary extreme right. The final section of the questionnaire was designed to record the socio-demographic and socioeconomic characteristics of the respondents (gender, age, annual income, municipality of residence, voting intention in national elections, etc.).

The questions were close ended, either with multiple-choice answers (with or without ranking) or with ordinal variables on a 5 point scale ranging from

1 to 5 (each number corresponds to a degree of agreement/disagreement with the question or to a likelihood of the statement taking place).

4.2. Sample and collection method

The survey was conducted between 30 March and 14 May 2019, just before the COVID-19 pandemic in Athens, Greece. Only active respondents aged over 18 yr participated in the survey. Simple stratified random sampling was used as the sampling method and all questionnaires were collected by the same person through in-person interviews in different places in the city, on different days and during different hours, respecting the representativeness of the sample in terms of gender, age, marital status, educational level and occupation. Hence, it could be argued that the survey results reflect the trends of the entire population of Athens and thus, to a significant degree, the general trends of Greek society.

The sample size, assuming a finite population, was calculated using the following equation (Kothari 1990):

$$n = \frac{z^2 \times p \times (1-p) \times N}{ME^2 \times (N-1) + z^2 \times p \times (1-p)} \quad (1)$$

where n is the sample size, ME is the desired margin of error (for desired reliability, the acceptable maximum error is 0.05, with an associated 95% confidence interval), N is the population size (adult population of Greece: 8 926 161 inhabitants), p is the preliminary estimate of the proportion of the population (as the value of p was not known, a maximum value of 0.50 was assumed) and z is the 2-tailed value of the standardized normal deviate associated with the desired level of confidence (for a 95% confidence interval, the value of z was equal to 1.96).

In our case, the desired margin of error of 5% resulted in 384 questionnaires. To further decrease the margin of error, 600 valid questionnaires were collected and analysed. The desired margin of error of this sample is 4%.

4.3. Analysis of the results

The data collected from the questionnaire were evaluated statistically using SPSS. The first level of analysis was performed using descriptive statistics: the mean value and standard deviation of the answers and the frequency distribution of each answer was calculated. Next, a chi-square (χ^2) test was used to reveal statistically significant correlations between the

answers and the socio-demographic characteristics of the respondents. A correlation was considered statistically significant if $p < 0.05$. In the chi-square analysis, in order to facilitate the calculation and interpretation of the results, the responses of the variables were converted from the 5 point scale, e.g. 1: strongly disagree, 2: disagree a little, 3: neutral, 4: agree a little, 5: strongly agree, to a 3 point scale with variables ranging from 1 to 3, e.g. 1: strongly disagree, disagree a little, 2: neutral, 3: agree a little, strongly agree.

Furthermore, principal component analysis (PCA) was applied for a deeper analysis of the sample. PCA is used to reduce initial variables into a smaller number of uncorrelated linear combinations. Cronbach's alpha test was used to assess the internal consistency of the variables within each component (Chung et al. 1998).

Finally, K-means analysis was applied to create a profile of the respondents. K-means is a simple clustering method used when there are unlabelled data (i.e. data without defined categories or groups). This is an iterative algorithm and its goal is to find groups in the data that are clustered based on feature similarity (Magalhães et al. 2021).

5. RESULTS AND DISCUSSION

5.1. Description of the sample

Our sample was compared to the results of the 2011 Greek housing and population census (Hellenic Statistical Authority 2011). The representativeness of the sample was tested according to the procedure proposed by Parke (2013). According to this test, our sample represents the adult population of Greece at every level of socio-demographic parameter examined here: gender, age, marital status, educational level and occupation.

Regarding the socio-demographic characteristics of the sample, 53.2% were women and 46.8% were men (Table 1). The average age of the sample was slightly higher than the population age (44.5 versus 41.3 yr); 28.7% of the respondents were 25–39 yr old, while 27.6% were 40–54 yr old. In addition, 51.5% were married and 37.0% single. In terms of educational level, 47.3% of the respondents were primary or secondary school graduates, 23.2% were in high and post-high education, 23.5% had a university degree and the rest (6.0%) had an additional postgraduate degree and/or a PhD. In addition, 12.2% of the respondents were civil servants, 16.4% were self-employed and 27% worked in the private sector. Also,

Table 1. Description of the sample

	Sample (n = 600)	Census 2011
Gender		
Female	53.2% (n = 319)	51.8%
Male	46.8% (n = 281)	48.2%
Average age (yr)	44.5	41.3
Age group		
18–24 yr	14.3%	10.5%
25–39 yr	28.7%	30.1%
40–54 yr	27.6%	28.4%
55–64 yr	14.6%	15.2%
65–74 yr	14.8%	15.9%
Marital status		
Married	51.5%	47.9%
Single	37.0%	40.9%
Divorced	2.7%	4.1%
Widowed	8.8%	7.1%
Educational level		
Primary/secondary school	47.3%	50.8%
High and post-high education	23.2%	29.4%
University education	23.5%	17.5%
Master diploma/PhD	6.0%	2.3%
Occupation		
Self-employed	16.4%	10.6%
Civil servant	12.2%	7.9%
Private employee	27.0%	25.6%
Housewife	8.1%	13.0%
Retired	18.8%	25.5%
Student	8.8%	8.3%
Unemployed	8.7%	9.1%
Total annual income		
0–5000€	10.6%	
5001–10000€	10.4%	
10001–15000€	15.8%	
15001–20000€	17.8%	
20001–30000€	23.5%	
30001–40000€	12.2%	
40001–50000€	5.9%	
Over 50000€	3.8%	

8.8% were students, 18.8% were retired, and 8.1% were engaged in household chores, while 8.7% were unemployed. The vast majority (78.1%) of the sample was classified in the lower classes of annual family income (less than €30 000 per year).

5.2. Descriptive analysis

5.2.1. Fascist behaviour under the guise of ecological consciousness

In Question 1, the respondents had to determine the extent of their agreement with the characterization of ecology as social, political, national, regional

and racial. Though respondents defined ecology primarily as social (84%) and political (69%), a significant proportion of them designated it as national and regional (64% and 61%, respectively), while a smaller, yet notable, number of respondents (22%) perceived it even as racial. The racial hue supported by approximately 1 out of 4 respondents should not be ignored. It is indeed a particularly worrying fact, since it reveals a growing recognition of racist messages.

Gender had a statistically significant relationship with the political perception of ecology ($p < 0.05$), with men supporting this statement more than women (mean value: 2.60 vs. 2.45). Single respondents agreed less than those who were married (mean value: 2.33 vs. 2.48) with a national character of ecology, while those who were divorced or widowed agreed more strongly (mean value: 2.62 and 2.63, respectively). All occupational categories, all levels of education and the older people agreed with a national concept of ecology. The sample generally disagreed with a racial sense of ecology; however, the highest disagreement came from retirees and the unemployed (mean value: 1.79 and 1.80, respectively), who tended to a more neutral stance. The sample agreed very strongly with a social sense of ecology and this was strongly emphasized by the whole range of age classes.

Next, the respondents had to define the content of 4 discrete ideologies related to ecology: ecofascism, ecoliberalism, ecosocialism and ecoanarchism, and were given a choice of answers for each one. About 6 out of 10 (61%) respondents interpreted ecofascism as a proprietorial right in nature, and 1 out of 2 as extreme nature reverence and as hindering access to areas of natural beauty (50% and 49%, respectively). On the other hand, half of the respondents expressed the view that ecoliberalism attaches economic value to the environment (51%) and that it represents green capitalism (privatization of national natural resources, agrobusiness, etc.) (49%), while 28% of them conceived ecoliberalism as a corrective policy against environmental degradation. Approximately 1 out of 2 (47%) respondents considered ecosocialism as the means according to which the environment is subjected to public and social protection, 39% associated it with sustainable development, whereas 36% linked ecosocialism to recent community mobilizations, such as collective urban agriculture, biological farming, buying and selling without intermediaries, exchange of goods, etc. For 43% of the respondents, ecoanarchism meant terrorist activities (eco-sabotage), 37% related it to every action that prevents intervention in nature, while 36% claimed ecoanarchism indicates radical personal and social change.

The above results suggest that some concepts are not fully understood by people (e.g. the connection between anarchy and terrorism) due to systemic propaganda. Obviously, the control that propaganda can exert on people is enormous (Huang & Cruz 2022). According to Szenes (2021), young people, in particular, need to be taught a critical way of thinking in order to tackle the propaganda skills used by the system and extremists through the media and social media. On a positive note, the denunciation of capitalism and, on the other hand, the acceptance of left messages are clear (e.g. 1 out of 2 respondents considered ecoliberalism closely related to the attachment of economic value to the environment, while an equal proportion associated ecosocialism with public and social protection of the environment).

5.2.2. Classical ecofascist rhetoric as inspiration for today

In Question 3, almost 6 out of 10 respondents (57%) agreed (moderately or strongly) with the statement that the modern lifestyle (urbanism, modernism, consumerism) is responsible for the degradation of Greek culture and race. The same percentage of respondents embraced the view that the protection of the Greek environment results in the protection of the Greeks themselves and the preservation of their national identity. According to the chi-square test, most of the demographic variables showed a statistically significant correlation with the above proposals ($p < 0.05$). Women agreed more strongly with the first proposal than men (mean value: 2.37 vs. 2.16). Unmarried people (usually young people) took a more neutral stance (mean value: 2.09), in contrast to older people (mean value: 2.52) and the widowed (mean value: 2.50) who strongly supported these proposals. In terms of employment status, self-employed persons were more neutral (mean value: 2.09). The degree of agreement decreased with the level of education (mean value greater for those with compulsory education than for holders of a postgraduate and/or doctoral degree). The age class of 25–39 yr showed the lowest scores both for the statement that the modern way of life is responsible for the degradation of Greek culture and race and for the statement that the protection of the Greek environment contributes to the protection of Greeks and their national identity (mean value: 2.04 and 2.01, respectively). For the other age classes, the degree of agreement increased with age.

A fairly high proportion of the sample (62%) considered that the Greek race is inseparable from the Greek landscape. Additionally, being entirely consistent with the German Nazis and the Italian fascists, a significant majority of the sample (about 70%) consented to the belief that Greece could become independent in terms of food supply, provided that an extensive national ruralization campaign was implemented. The chi-square test revealed a relationship with gender: women seemed to agree more than men with this statement (mean value: 2.56 vs. 2.36). In terms of educational status, those with high levels of education showed less support for the implementation of national ruralization (2.63 for those with compulsory education vs. 2.33 for holders of postgraduate/doctoral degrees).

Next, in Question 4, 10 major ecological approaches (policies, activities or ideologies) that were adopted by the German Nazis during the interwar period were offered to the respondents, who were asked to rank the 3 most important in descending order. The sample demonstrated its humanistic and ecological ideals by opting for the most environmentally friendly and societal approaches, in the following order: renewable energy sources (RES) (75%), environmental land use planning (61%) and organic farming (42%). On the other hand, practices such as nature reverence, agrarian romanticism and access-restriction to designated areas of natural beauty were left out. Moreover, the sample rejected individual eco-behaviours adopted by the leading members of the NSDAP, such as Hitler's vegetarianism, Himmler's animal loving, the biodynamic diet of Hess and their attraction to homeopathic cures.

5.2.3. Voting intention and the environment

In Question 5, surprising though it may seem, approximately 6 out of 10 respondents (57%) attached considerable (moderately or strongly) importance to the environmental positions of the political parties when voting at national elections. Women, civil servants and the unemployed were more likely to vote for a different party if priority is given to the environment (mean values: 2.42, 2.56 and 2.51, respectively). In terms of age, the 65–74 age class appeared more hesitant compared to the younger sections of society (ages 25–39 and 40–54), who showed a greater willingness to vote for another party of a similar ideology that would support environmental protection ($p < 0.005$) (mean value: 1.81 for ages 65–74 vs. 2.29 for 25–39 and 2.29 for 40–54).

However, despite this apparent genuine ecological trend, the ecological political party of Ecologist Greens was supported by a very small percentage of voters at the 2019 European elections: only 0.87% of Greeks voted for them (Ministry of Interior 2021). Hence, voters take into account the overall framework a party presents, rather than focusing selectively on certain themes of its political agenda, such as ecologism.

Additionally, this ecological trend was not influential enough to fuel a mass, active participation in an authentic ecological movement against modernism, urbanism and technological progress and in favour of a return to a simpler and more 'natural' way of life. In respect of this, only 20% of the sample reported a likelihood to act in this manner. Divorced people showed the greatest willingness to change their way of life (mean value: 1.91), and it is unlikely that the widowed (mean value: 1.19) and holders of a post-graduate and/or doctoral degree (mean value: 1.47) will join such a movement.

Therefore, a Greek version of the German youth movement that emerged in the late 19th century is hardly likely to happen. Of course, the absence of certain socio-political circumstances, like those that were present in Germany, and the lack of an inspiring ecological rhetoric largely contribute to this fact (Biehl & Staudenmaier 2011).

On the other hand, in a widely non-political response, the overwhelming majority of the respondents (78%) endorsed the political slogan 'we are neither left nor right, but up front', demonstrating perhaps their motive for political unity, beyond specific party interests. Women (mean value: 2.45), civil servants (mean value: 2.41) and the most dynamic age classes of society (ages 25–39 and 40–54) (mean values: 2.39 and 2.46, respectively) agreed more strongly with this statement. However, the respondents were unaware that this slogan was coined by H. Gruhl, a co-founder of the German Greens and one of the most prominent social Darwinists and eco-racists in Germany in the late 1970s and early 1980s (Biehl & Staudenmaier 2011). Furthermore, they ignored the fact that the pretence of offering a 'third way', between left and right, constituted a vehicle for classic European fascism.

5.2.4. Greek environmental policy

The results of this survey confirmed the respondents' deep mistrust of public authorities and institutions. In Question 6, 3 out of 4 respondents (76%)

denounced the Greek state (central government and municipal authorities) for not acquiring the necessary political strength to take initiatives and make decisions for the benefit of the environment. The chi-square test showed that the widowed (mean value: 1.69), civil servants (mean value: 1.67), less-educated people (mean value: 1.45) and the elderly (mean value: 1.58) had greater distrust of public authorities and institutions. Furthermore, 72% of the sample considered society to be the most effective 'actor' for protecting the environment, an actor that has gained considerable credibility during recent years through community mobilization and participation in environmental claims. Moreover, less than 40% of the respondents showed trust in both local and central government (38% and 37%, respectively); thus, respondents completely disregarded a major institutional role of the Greek state — that of nature protection. Finally, the great majority of the respondents (75%) recognized that the trivial role environmental protection plays in current official Greek affairs is not the result of the 2008 economic crisis, but expressed the view that protection of the environment had never been, either prior to or after 2008, among the priorities of Greek governments. Women (mean values: 1.45 and 1.36), the widowed (mean values: 1.88 and 1.81) and less-educated people (mean values: 1.43 and 1.37) expressed more strongly their agreement that the Greek government had never, neither before nor after the crisis, respectively, had the protection of the environment as a priority. Retired people and the elderly (mean values: 1.51 and 1.44, respectively) agreed more strongly with the statement that Greek authorities cared more about the environment before the crisis.

Showing its democratic ideals, almost the entire sample (94%) strongly denounced the violent governmental repression and the exercise of physical violence towards demonstrators protesting against 'public development' plans during recent years, mainly after the economic crisis of 2008. Men seem to agree with this statement more than women. In contrast, a slight majority of 54% supported the utilization of physical violence by community members (citizens, activists, environmental movements, etc.) when championing the environment. This emphasizes that revolutionary trends against the political system are not negligible within Greek society and that dynamic solutions are also demanded by a considerable proportion of it. The chi-square test revealed that single and divorced people showed a higher agreement rate than the married (2.33 and 2.34 vs. 2.15) and that the degree of agreement decreased with age (mean value:

2.00 for ages 65–74 vs. 2.19 for 40–54 and 2.40 for 25–39).

Finally, 90% of the sample had a positive view of very strict law enforcement, which would even result in prison confinement, and the imposition of heavy financial sanctions against polluters. All marital status categories showed a statistically significant agreement with the statement (mean value: 2.81 for the married, 2.87 for the single, 2.85 for the divorced and 2.88 for the widowed). In other words, respondents implied injustice on the part of the Greek state: a number of stakeholders (industries, ship-owners, multinational corporations, contractors, ...) are more responsible than individuals for the environmental crisis; yet not only do they ignore it, but they also continue to degrade the environment in the absence of state control, and going even further, due to the direct support they receive from the government, central or local.

5.2.5. Causes of and solutions to the environmental crisis

In this section, the respondents' views concerning the causes of the environmental problem and the politics required for environmental renewal were determined. In Question 7, the respondents were asked to select the 4 most effective proposed solutions: citizens' environmental consciousness (proposed from 84% of the respondents), a more stringent and effective enforcement of regulations and laws (77%), the connection of ecological objectives with financial incentives (58%) and changing the current socioeconomic and political system (56%).

On the whole, the respondents focused on social and democratic solutions, rejecting those that would have been recommended by modern ecofascists and adherents of the extreme right. Fascists deny the resolution of the environmental crisis within a demo-

cratic context. In contrast, they argue that a 'green Adolf', or a 'spiritual elite', or an 'eco-dictatorship', or ideally, National Socialism, 'the only genuine green movement' in their view, is required to confront ecological destruction. In democracies, they claim, society is shaped by its motives, i.e. through community participation, and not by its actual interests, which are known solely by the 'leader' (Biehl & Staudenmaier 2011).

Democratic answers were also given for Question 8 in relation to the global causes of the ecological crisis, where respondents had to rank in descending order the 4, out of 8, most important of these causes. First, the lack of political power for law enforcement was found to be the most significant source of environmental degradation (71% of the respondents), followed by industrialization together with modernism/consumerism (66%). As a final cause, capitalism (economic competition, multinationals, etc.) was chosen by a marked proportion of the sample (62%). Interpreting these results, the optimistic view is that causes that would have been noted by anti-democratic ideologies (e.g. overpopulation, immigrants, science and technology) were rejected. On the other hand, some of the sources mentioned are also present in the far-right discourse in an attempt to stress that nothing, except for National Socialism, is capable of successfully confronting the environmental problem, either globally or nationally.

5.3. PCA

The PCA was performed using 12 initial variables/sub-questions derived from the initial questions of the questionnaire in order to reduce the initial variables to a smaller number of new factors. Four new factors were calculated, and these explained 64.73% of the initial variables (Table 2). This is considered to be an acceptance value (>50%) according to Hair et

Table 2. Factors that emerged from the PCA, the rotated component matrix and total variance explained

N	New factors	Eigen values	Variance explained (%)	Cumulative variance (%)
PC1	Greek race and environment	2.267	18.894	18.894
PC2	Voting intention and influence of positions on the environment	2.177	18.138	37.032
PC3	Greek environmental policy	1.736	14.463	51.495
PC4	Characterization of ecology	1.588	13.232	64.727
KMO and Bartlett's test				
	Kaiser-Meyer-Olkin measure of sampling adequacy	0.744		
	Bartlett's test of sphericity	<0.001		

al. (2014). The Kaiser-Meyer-Olkin value was 0.744 (>0.7) and Bartlett's sphericity test gave a $p < 0.001$ (<0.005), which are also considered acceptance values according to Jolliffe (2002) and Rencher (2002). The internal consistency of the variables within each component was measured using Cronbach's α test which accepts values greater than 0.60 (Hair et al. 2014). Table 2 also shows the loading rates of the initial variables on the 4 new factors.

The first factor, named 'Greek race and environment', consists of 4 variables. The 3 variables that strongly load the factor are: 'the protection of the Greek environment has the consequence of protection of the Greeks and their national identity', 'the Greek race is inextricably linked to the Greek countryside' and 'the modern way of life is responsible for the degradation of Greek culture and race'. These variables represent the most extreme right-wing ideas. On the other hand, 'the protection of Greek nature is a national duty' is the variable that adds less burden to this factor. This variable, although part of far-right propaganda, is not exclusively linked to extreme right-wing beliefs, but also to the environmental crisis and the recognition of the need to turn to more sustainable solutions. Therefore, this factor is mainly loaded by the more extreme right-wing ideologies.

The second factor, named 'Citizens' voting intentions and environmental awareness', also consists of 4 variables. This factor is more influenced by variables that represent the influence on voting tendencies by ideologies, such as ecology, and the intention of participants to vote for a party of a similar or different ideology to their beliefs that has the protection of the Greek environment as a priority. The variable that represents the possibility of taking an active part in a movement that promotes the abhorrence of the modern way of life, the denial of technological progress and the simplicity of living according to the laws of nature, and also the variable 'we are neither left nor right, but forward', which shows the motivation of the participants for political unity beyond specific party interests, are the 2 variables that load the factor to a lesser degree. Therefore, the use of ecology by fascist groups and the tendency to return to a way of life closer to nature influenced the electoral trends of the participants and this is reflected by the high load of these variables on this factor.

The third factor, named 'Greek environmental policy', is loaded equally by the 2 variables that represent environmental protection as one of the priorities of the Greek government and of the parties before

and after the financial crisis of 2008. This shows that ecology has always had a trivial role in Greece and has never been one of the priorities of Greek governments, regardless of the economic crisis.

The fourth factor, named 'Ecological characterization', consists of 2 variables and is related to the characterization of ecology as regional and national. The participation of the 2 variables is almost equal. This indicates that the environmental problem is considered as an issue that must be addressed by both the state and by the region or the municipality.

5.4. Cluster analysis (K-means)

The K-means approach of cluster analysis was used to organize the respondents into clusters. Cronbach's α index was calculated for the 4 components obtained from the PCA analysis; its value was greater than 0.60 (Table 3).

The 4 components of the PCA method were used in the K-means method. K-means cluster analysis is a system of separating the data into groups (clusters), the members of which have common characteristics, ultimately revealing the profile of the participants. To determine the correct number of clusters, a hierarchical cluster analysis was performed and the resulting dendrogram showed 2 central response clusters. Table 4 shows in detail the resulting clusters of participants, the final cluster centres of the K-means analysis, the number of participants that make up each cluster and the corresponding percentage.

Cluster 1 (45.44% of the sample) consists of people giving priority to ecology. These people can be influenced in their voting tendency by political groups that have ecology and the protection of the Greek environment as a priority, and prefer a simpler way of life, closer to nature. These people also prefer political unity and ignore the interests of the political parties. They prefer to be neither left nor right. It is characteristic that those people recognize ecology as a serious matter and are not influenced by far-right parties.

On the other hand, Cluster 2 (54.56% of the sample) is made up of people who do not take ecology seriously. These people interpret the environmental problem in a shallow way and believe that it could be addressed at the borders of the country or any region or municipality. Also, this cluster is made up of people who believe that environmental problems have never been among the priorities of the Greek state and of people who are influenced by more extreme right-wing ideologies.

Table 3. Results of the rotated component matrix

Variables	Components emerged from the PCA				Cronbach's α
	PC1	PC2	PC3	PC4	
Modern lifestyle responsible for the degradation of the Greek culture and race	0.717				0.735
Protection of the Greek environment has as a consequence for the protection of the Greeks and their national identity	0.802				
Greek race is inextricably linked to the Greek countryside	0.738				0.709
The protection of Greek nature is a national duty	0.539				
Possibility of voting for a party of a similar ideology to the one you usually vote for, which would have the protection of the Greek environment as a priority		0.813			0.709
Possibility of voting for a party of a different ideology to the one you usually vote for, which would have the protection of the Greek environment as a priority		0.817			
Possibility of taking an active part in a movement that would promote the abhorrence of the modern way of life, the denial of technological progress and the simplicity of living according to the laws of nature		0.621			0.826
'We are neither left nor right, but up front'		0.578			
Environmental protection is one of the priorities of the Greek government and of the parties in general after 2008			0.916		0.826
Environmental protection was one of the priorities of the Greek government and the parties in general before 2008			0.916		
Ecology is: regional				0.720	0.621
Ecology is: national				0.787	

Table 4. Final cluster centres

New factors	Clusters	
	1 People who prioritize ecology	2 People who do not take ecology seriously
Greek race and environment	-0.182	0.152
Voting intention and influence of positions on the environment	0.702	-0.584
Greek environmental policy	-0.22	0.184
Characterization of ecology	-0.435	0.362
Number of cases in each cluster	274	329
Percentage of the sample	45.44	54.56

6. CONCLUSIONS

The attempt to approach environmental issues and problems by various political groups does not always have a democratic character. The second interpretation of ecofascism also refers to a political movement that promotes its authoritarian political opinions under the guise of protecting nature. During recent years, there has been an increase in far-right ideas in Europe and, correspondingly, in Greece, related to the protection of the environment. Studying the

opinions of the citizens of Greece regarding the association of political parties with ecology and the possible existence of ecofascist opinions, it can be observed that some citizens embrace these opinions. More specifically, a significant majority of respondents express nationalist and patriotic beliefs about Greek culture and the Greek race. Additionally, the vast majority of the sample endorsed the political slogan 'we are neither left nor right, but up front', while the racial hue that a small, yet notable, proportion gave to the context of ecology should not be ignored.

On the other hand, respondents attributed a political and social meaning to the context of ecology. Furthermore, social attempts to improve existing conditions were supported warmly, a concern that is associated with the left-wing. With reference to the Greek environmental problem, respondents highlighted local authorities' deficiency in political strength to enforce the laws, their unwillingness to collide over the interests of the economic elite for the benefit of the environment and their inability to protect nature effectively. Yet, local communities, who

attach a completely different value to the environment, resort to militant activism, which was also welcomed by the respondents. In contrast, the sample disagreed strongly with state repression and the exercise of physical violence towards activists, but universally supported harsh punishment of polluters, both financially and legally. Finally, even in relation to the causes of the environmental crisis and recommendations for environmental renewal, respondents rejected those that would have been proposed by ecofascists.

On the whole, the sample exhibited humanitarian, democratic and left-wing values. However, a proportion of the respondents, as mentioned above, mentioned nationalist and even fascist tendencies related to nature in some of their answers. In other words, it can be observed that some citizens connect their authoritarian political opinions with the protection of the environment, believing that the environmental problem we face today will be better dealt with by implementing authoritarian practices and decisions. However, these authoritarian opinions that hide a more general authoritarian culture should be taken into account in the political world, in order to prevent future possible fascist acts in Greece and in the rest of European societies under the pretext of protecting the environment. Finally, it can be seen that the concept of ecofascism has not been eliminated over the years but, on the contrary, the historical background of ecofascism strengthens the present expressions of authoritarianism, as history has shown us that the parties have acted and continue to act under the guise of protecting nature, using dark practices and opinions, thus showing the true face of fascism.

As the current socio-economic and political conditions in Greece, but also in Europe in general, can fuel an outbreak of fascism, we should be very cautious following these findings due to the growing impact of far-right ideas in society. Some aspects of ecofascist rhetoric are still able to mislead, revealing the insidious and disturbing infiltration of fascism into society under the guise of environmental protection.

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