Research

Permacrisis: a psycho-socio-linguistic analysis

Alberto Zatti[1] [iD]

Abstract

This research analyses the "word of the year 2022": Permacrisis. Through the Semantic Differential tool (Osgood in Am Anthropol 66: 171-200, 1964), 16 words were investigated among those most searched for in Google Search in the second half of 2022. Central questions are: What are the cultural differences in permacrisis connotation among five countries (Italy, France, United Kingdom, Germany and Poland)? What are the cultural differences in how permacrisis is connotated? How do different political orientations relate to the concepts of Politics and Democracy regarding permacrisis? The research showed how the Permacrisis is strongly linked to concepts such as Nuclear weapons, World War III and the COVID-19 virus. On a sample of 1273, the study showed evident cultural differences in permacrisis connotation, such as the emphasis on Weapons by the Italians or the Economic Crisis by the Germans. Statistical analysis reveals different anxieties: i.e. Italians fear losing their strength, the French anger about not being heard, while the British are anxious to remain socially isolated. A contrast between the concepts of Politics and Democracy was analysed on the sample's declarations of belonging to political orientations such as Conservatives, Christian democrats, Social democrats, Greens and the Left. Finally, the concept of Climate Crisis has been analysed, which results in the Semantic Differential, against any prevision, placed in a more peripheral orbit than the concepts associated with Permacrisis. Complete Tables and Figures can be consulted at the Open Science Framework URL https://osf.io/bwcp3/?view_only=be46b29bbf4d47ceba50138f82f2cd1d.

Keywords Social representation · Affective attitudes · Semantic differential · Attitudes on Politics and Democracy in Permacrisis time

1 Introduction

At the end of 2022, the Collins English Dictionary announced that the "word of the year" was Permacrisis, defining it as "an extended period of instability and insecurity, especially one resulting from a series of catastrophic events" [12].

European Commission President Ursula Von der Leyen contributed much in her speeches to making the term Permacrisis popular (see [10, 14]). The coining of a term that refers to a "permanent crisis" from the social, economic (European Union's annual inflation in June 2022 was 9.6%) and global order point of view has become the semantic focus of the political debate: two tough years of global pandemic (2020 and 2021) have just ended, and, at the beginning of 2022, precisely on February 24th, Russia has invaded Ukraine!

Google Trends reports peak searches for the word Permacrisis in Italy from September 2022 to January 2023. In Germany, the search peaks of the word Permacrisis occur from June 26th to July 2nd, with other peaks in late September, late November and December 2022. Similar dynamics happened in all European countries.

✉ Alberto Zatti, Alberto.zatti@unibg.it | [1]Dipartimento di Scienze umane e sociali, Università degli Studi di Bergamo, P.le S. Agostino, 2, 24129 Bergamo, Italy.

Discover

The appearance of a relatively new term such as Permacrisis, a word that indicates a historical-social perspective of criticality in the long run, constitutes a psychosocial event that deserves to go deeper. With this research, the mental representation of the word "permacrisis" has been placed at the centre of the investigation.

Since the time of the essay by Ogden and Richards [5], it has been known that semantic content that crystallises in a semiotic referent corresponds to some form of mental representation. What is, however, the psychic representation of a linguistic sign composed of two semantic seeds such as "perma", which derives from "permanent", and "crisis", which evokes situations of instability, reclaims a psycho-semiotic investigation. Both seeds with which the noun permacrisis was coined refer to semantic areas and, therefore, of psychic representation somehow "dynamic", so to speak, if not conflicting.

2 Methods

The research was conducted in the last ten days of March 2023. Large protests against the Macron government and the retirement age reform occurred in France. On the same days, Germany recorded a series of national strikes in rail and air transport. Great Britain was also crossed of street protests with strikes, among others, in the health field and airports. In Italy, where the new government had been in office for six months, the announced economic, social policy and welfare reforms were answered by a national mobilisation by trade unions and opposition parties. For its part, Poland, closer than others to the Russia-Ukraine war, is the European country that has received the most significant number of Ukrainian refugees. As of March 16th, 2023, there were 976,060 Ukrainian displaced people, according to data released by the European Union.[1]

Thus, it is possible to affirm that the research data presented here was collected in a rather turbulent period, where the "permanent crisis" seems completely present.

2.1 Participants

Starting from these reflections, a questionnaire was designed consisting of a hundred items administered to a sample of five European countries, precisely 250 Italian, French, English, German and 273 Polish subjects, for 1273 subjects. The questionnaire was distributed through the Qualtrics platform, which also structured recruitment, balanced in terms of gender and level of education of the sample. The characteristics of the sample are given in Table 1.

2.2 Procedure

The questionnaire consisted of three question sessions: one session was based on a semantic differential [7] of 21 opposite words on a scale of seven values, repeated for 16 relevant words. The list of words evaluated with the semantic differential was chosen by consulting the most searched terms in Google Trends and the relevance particularly closer to the semantic area of the word at the centre of the search, namely Permacrisi.

The terms assessed with semantic differential testing are available in OSF.

2.3 Measures

The 21 pairs of opposite terms of the semantic differential were chosen from those that previous research by Osgood [8, 9] and Capozza [1] identified as most transcultural. The composition of the list was also guided by the results of the original research by Osgood and Sebeok [6], according to which factor analysis would have confirmed that three prevailing psycho-semiotic dimensions can be highlighted: the "Evaluation" dimension, i.e. the attraction or aversion that the emotional activation of the semanteme would demonstrate in the evaluations of the subjects (to identify terms of the "Valuation" Factor see OSF),the dimension called "Power" (consisting of the pairs of words from 12 to 16), which emotionally would refer, with a metaphor, to the "weight" attributed to the target term, otherwise expressible in psychological language as "tension" or problematic nature associated with the word evaluated; the "Activity" dimension, often absorbed by the previous factor, which would add to the psycho-semiotic-affective evaluation the excitability stimulated by a word (the last four pairs of words reported in OSF).

---

[1] see URL: https://www.consilium.europa.eu/it/infographics/ukraine-refugees-eu/).

Table 1 Sample

Nation	N	%	Sex	N	%	Age	N	%	Instruction	N	%	Political orientation	N	%
Italy	250	19,6	Female	636	50,0	18–24	137	10,8	No educational qualifications	33	2,6	Political orientation		
France	250	19,6	Male	629	49,4	25–34	228	17,9	Compulsory education	278	21,8	Conservative	288	22,6
United Kingdom	250	19,6	Total	1265	99,4	35–44	238	18,7	High school diploma	435	34,2	Christian Democrat	286	22,5
Germany	250	19,6	Missing	8	0,6	45–54	253	19,9	Bachelor's degree	264	20,7	Progressive/Socialist	259	20,3
Poland	273	21,4	Total	1273	100,0	55–64	278	21,8	Master's degree/single cycle	199	15,6	Green	195	15,3
Total	1273	100,0				65–+	139	10,9	Postgraduate Diploma	64	5,0	Left	245	19,2
						Total	1273	100,0	Total	1273	100,0	Total	1273	100,0

A second session of the questionnaire consisted of 42 questions to which the respondent was asked on a scale from 1 to 6 the degree of agreement with what was expressed. The questions can be grouped under four themes: (1) values; (2) the inherent emotion of anger, both as an object and as subjective reactions; (3) connected to fear, as an object and as modes of immediate reactions; (4) Finally, ten questions concerned possible forms of anguish. In English, "anguish" is more commonly replaced by the term "anxiety", although the vocabulary of the English language contains the corresponding term of Latin origin. Nevertheless, the questionnaire reported the word "anguish" for the English sample because the psychodynamic theory framework chosen here [4],and [13] points to the specific meaning of it and not to the general distress word "anxiety". For the other samples, Italian, French, German and Polish, "anguish" has a direct, unequivocal term. The entire questionnaire was translated into the language of the target country.

2.4 Objectives

The questionnaire sessions aim to restore a psycho-social-affective representation of the psychic representation of Permacrisi. The semantic differential allows an emotional interpretation of the psycho-semiotic construct of the linguistic concept. The emotional dimension is also investigated by questions about anger, fear and anguish (see [11]).

2.5 Statistical analysis

The collected data were initially analysed through a descriptive statistic that includes the values of the averages calculated for each semantic differential. In addition, analysis of variance (MANOVA) and linear regression were performed, starting from the automatic linear regression modelling of the SPSS statistical program.[2] The results examined for interpretation had a p-value ≤ 0.05, considered the threshold statistical significance value. All statistical analyses were conducted with the SPSS program, version 26.

3 Results

3.1 The words of the Permacrisis

Below are the words that have registered a higher average to the semantic differential, consisting of the average pairs of words that indicate aversion, indicated by the negative sign, or attraction, indicated by the positive sign. The scale range is plus three to minus three, with zero as a neutral value (see Table 2). It shows the individual words representing their positive or negative pole in the pair of opposite terms.

Out of 16 words analysed with the semantic differential, 12 falls into the negative-aversive side. Four words, Democracy, Military, Border and Climate Crisis (the latter, only for the Polish sample) register a positive value, very close to the neutral value of zero.

For the entire European sample, the seven words that receive the most negative scores are Invasion (− 0.67), Violence (− 0.66), Nuclear weapon (− 0.62), World War III (− 0.60), Pandemic (− 0.59), Permacrisis (− 0.57) and Covid-19 virus (− 0.52). Italians assign a higher aversive score than the average of the other four samples to the word Permacrisis (in order: I − 0.78; D − 0.60; GB − 0.57; P − 0.51; F − 0.40).
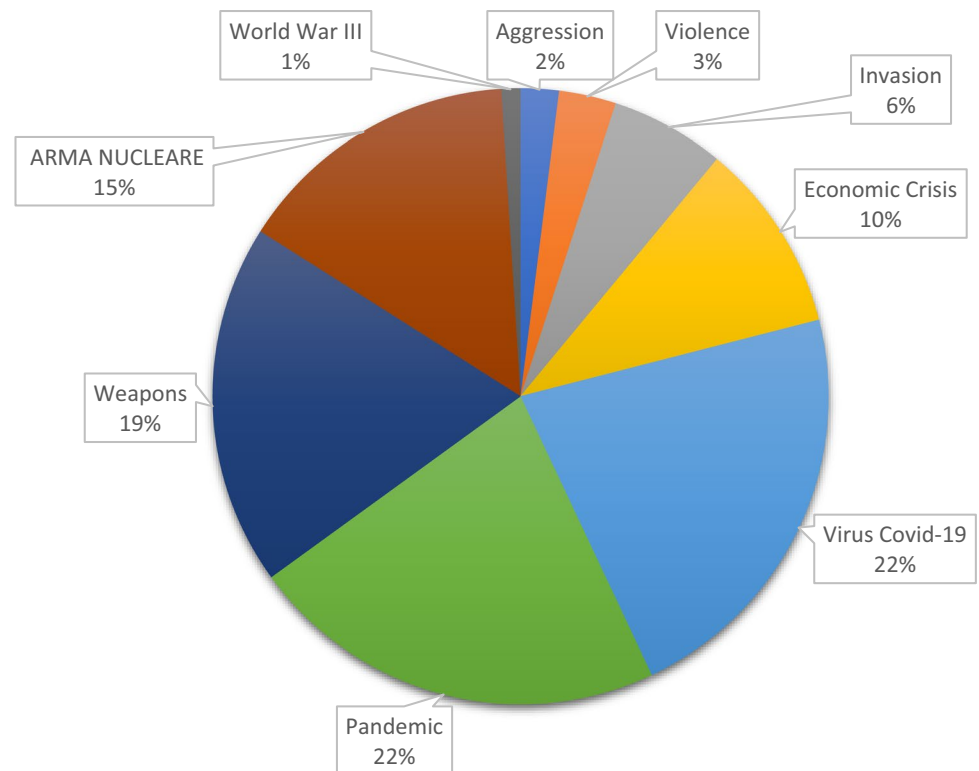
The five national samples differ in the adverse pre-eminence assigned to the words that appear in the first two places of the 'ranking': for the Italians, it is Nuclear weapon (− 1.03) and, immediately after, the idea of a World War III (− 0.97) to arouse a strong repulsion; for the French and the British, it is the couple Invasion (respectively: − 0.51; − 0.66) and Violence (− 0.48; − 0.70) to settle in the first two places of the ranking; Germans and Poles judge very negatively World War III (− 0,63 and − 0.58) and, then, respectively Invasion (− 0,77; − 0,70) and Violence (− 0.68; − 0,69). The only two of the seven most 'negative' words that appear exclusively in one of the countries are Border for the British (− 0.46) and Politics for the French (− 0.38).

---

[2] As stated in SPSS Statistical Manual: «Linear models predict a continuous target based on linear relationships between the target and one or more predictors. Linear models are relatively simple and give an easily interpreted mathematical formula for scoring. The properties of these models are well understood. They can typically be built very quickly compared to other model types (such as neural networks or decision trees) on the same dataset.»

Table 2 Averages of the evaluation received at the semantic differential of the 16 words investigated (ordered starting from the most positively connoted word)

ALL		I		F		GB		D		P	
0,43	Democracy	0,70	Democracy	0,35	Border	0,46	Democracy	0,47	Democracy	0,47	Democracy
0,20	Border	0,26	Military	0,23	Democracy	0,18	Border	0,04	Border	0,33	Military
0,14	Military	0,13	Border	0,03	Military	0,12	Military	−0,10	Military	0,23	Border
−0,06	Climate crisis	−0,07	Climate crisis	−0,04	Defensive warfare	−0,01	Climate crisis	−0,21	Climate crisis	0,12	Climate crisis
−0,24	Politics	−0,37	World war iii	−0,10	Politics	−0,07	Politics	−0,24	Politics	−0,09	Aggression
−0,27	Aggression	−0,38	Defensive warfare	−0,20	Climate crisis	−0,09	Aggression	−0,33	Aggression	−0,12	Defensive warfare
−0,30	Economic crisis	−0,46	Aggression	−0,32	Weapons	−0,28	Defensive warfare	−0,42	Defensive warfare	−0,26	Economic crisis
−0,38	Defensive warfare	−0,48	Economic crisis	−0,35	Aggression	−0,38	Economic crisis	−0,45	Economic crisis	−0,31	Politics
−0,51	Virus covid19	−0,62	Nuclear weapon	−0,38	Economic crisis	−0,39	Virus covid19	−0,57	Weapons	−0,40	Weapons
−0,52	Pandemic	−0,75	Politics	−0,38	Virus covid19	−0,42	Weapons	−0,59	Permacrisis	−0,51	Permacrisis
−0,57	Permacrisis	−0,78	Permacrisis	−0,40	World war iii	−0,46	Permacrisis	−0,60	Virus covid19	−0,54	Virus covid19
−0,59	Violence	−0,84	Weapons	−0,43	Pandemic	−0,53	Nuclear weapon	−0,63	Nuclear weapon	−0,55	Nuclear weapon
−0,60	Invasion	−0,85	Pandemic	−0,43	Nuclear weapon	−0,53	Pandemic	−0,64	Pandemic	−0,58	Pandemic
−0,62	Weapons	−0,88	Virus covid19	−0,46	Permacrisis	−0,57	Invasion	−0,65	Violence	−0,63	Violence
−0,66	World war iii	−0,97	Violence	−0,48	Invasion	−0,66	Violence	−0,68	Invasion	−0,69	Invasion
−0,67	Nuclear weapon	−1,03	Invasion	−0,51	Violence	−0,70	World war iii	−0,77	World war iii	−0,70	World war iii

Fig. 1 Words associated with Permacrisis – Total sample

The words that instead received a positive score in semantic differential, which can be interpreted as the most attractive semantic referents for the samples of respondents, are reported in Table 2. The word that unites all the subjects of the five national samples is Democracy. Italians assign it a highest attractive score than the others (0.7 against an average of 0.4). Border (average 0.20) and Military (0.14) receive a barely positive score from all five samples, highlighting a substantial 'neutrality' in the comparisons of the two terms (neither attraction nor repulsion).

3.2 Analysis of national samples

To analyse how the samples of the five nations investigated by the research 'compose' their mix of representations related to the word Permacrisi, please refer to Fig. 1 (and for those of national samples, refer to OSF Graphs).

Figure 1 shows the percentages with which each term, among the sixteen listed in Table 2, saturates the concept of Permacrisis. They were derived from the modelling produced by the linear regression carried out by the SPSS statistical programme. The pie charts show the percentages with which the words 'weigh' in terms of importance in associating themselves with the overall evaluation assigned to the term Permacrisi, according to the results of the judgments expressed by the samples in the semantic differential.

The total sample of 1273 subjects assigns a saturation percentage of 22% to the words Pandemia and Covid-19 virus, 19% to Weapons and 15% to Nuclear weapons.

The Italian sample saturates even 50% with the word Weapons in evaluating the Permacrisi! At 12%, we find the word Aggressivity and at 11%, Invasion, Nuclear weapon 6%. The 79% 'definition' of the concept of Permacrisi for Italians pertains to the semantic area of 'war'!

For the French sample, it appears that with only four of the sixteen terms examined, the concept of Permacrisis is saturated. For 37% with the concept of Covid-19 virus, for another 36% with Weapons, the Pandemic absorbs 23% and 4% by Border.

For the British, 79% of the saturation of the Permacrisis concept is realised by three words: Pandemic 34%, Nuclear weapon 28% and Violence 17%.

For Germans, the Economic crisis (39%), the Covid-19 virus (31%) and Nuclear weapons (22%) together make up 92% of the saturation percentage of the word Permacrisis.

Finally, the Polish sample distributes the importance in the composition of the concept Permacrisis to Pandemic (20%), Weapons (19%), Economic crisis (16%), Covid-19 virus (12%), Invasion (12%) and Violence, Military and World War III respectively, 8%, 8% and 5%.

3.3 Emotions and permacrisis

The percentages from the SPSS linear regression automatic modelling show the primary emotional expressions focused on Permacrisis anguish, anger and fear (main emotional reactions to the word Permacrisis are referred to in OSF graphs). From the analysis, identifiable "national characters" emerge for each of the five samples examined by the research (expressions that refer to emotions are in OSF).

In Italians, three primary forms of distress associated with Permacrisis emerge. The most consistent, which weighs 60% of importance, is the anguish of losing strength as the negative evaluation of the word Permacrisis increases. Then 29% of anguish follows, in which "you feel that time no longer goes ahead", and the anguish of feeling total alone weighs 11%.

The French sample reports both anguish and anger about evaluating the word Permacrisis. First, the main anguish results from the feeling "that the ground is opening up under your feet" (23%). Then, at 21 and 20 per cent, there are two reactions of anger to the word Permacrisis: the anger of not being heard and the anger deriving from not being understood in one's motivations.

For Britons, 78% of emotional reactions to Permacrisis are absorbed by one and only one form of anxiety-anguish: "no longer being able to count on anyone", which is a social anguish. The rest of the emotions at Permacrisis are distributed in minimal percentages between fears, such as the fear that power determines the behaviour of individuals (5%) and the fear related to the lack of certainty about the future (3%), the anger of not being heard (2%) and that derived from not being able to achieve one's goals (2%).

Germans present a picture of emotional reactions to the Permacrisis divided between anguish and anger. Among the anxieties, the most consistent (36%) is related to the loss of one's strength, accompanied by the anguish of feeling that time no longer goes on (10%) and the anguish of feeling that the ground opens under one's feet (6%). Germans report four forms of anger motivations with high percentages: anger when one is not understood (15%), anger when one is pushed to do something (13%), anger even if limits are imposed (12%), and finally, for 8% we find anger for feeling fragile.

Poles associate permacrisis assessment primarily with anger at not being heard (33%) and anger when limits are imposed, with 28% the anguish of being invaded and no longer being able to orient oneself (6%). In the percentage of emotional reactions to the word Permacrisis, the fear appears in the Polish sample that power determines the behaviour of individuals, which, although it counts for 6%, must be carefully considered given the current socio-political condition of Poland.

3.4 Politics in the time of permacrisis

"Democracy" is the word chosen as the most attractive by the five national samples (average 0.43). "Politics", on the other hand, is a word that received an average negative evaluation of the semantic differential from the entire European sample (average − 0.27). To understand why the research subjects have contrasted the two central terms of Western societies, multivariate analysis (MANOVA) was applied with the statistical program SPSS. The analysis compares the averages of the evaluations that the five national samples recorded at the semantic differential for each of the 16 words investigated by the research (see Table 2). The graphical representation of the national differences between the words "Democracy" and "Politics", according to the difference in the averages of the five samples, is visible in Fig. 2.

Of the 16 words surveyed, only Politics did not show statistically significant differences between the five national samples. The negative connotation of the word "Politics" seems to bring together Italians, French, British, Germans and Poles. Therefore, "Politics" is the only term within 16 opposed overall by all the Europeans surveyed (the average of the sample investigated is − 0.27). "Democracy", on the other hand, is a concept positively evaluated by the European sample (average + 0.43), with a macroscopic surge in support by Italians.

Questions 1 to 12 of the questionnaire (see OSF Appendix) consisted of expressions that referred to an evaluation of the values to which the respondent had to assign a consensus index ranging from 1 (very little) to 6 (very much). Therefore, taking as objective terms "Politics" and "Democracy", the modelling of the regression analysis of the SPSS statistical programme has identified a different composition of the values themselves for the two words, which, as has already been pointed out above, "Politics" and "Democracy" receive a decidedly opposite evaluative connotation to each other.
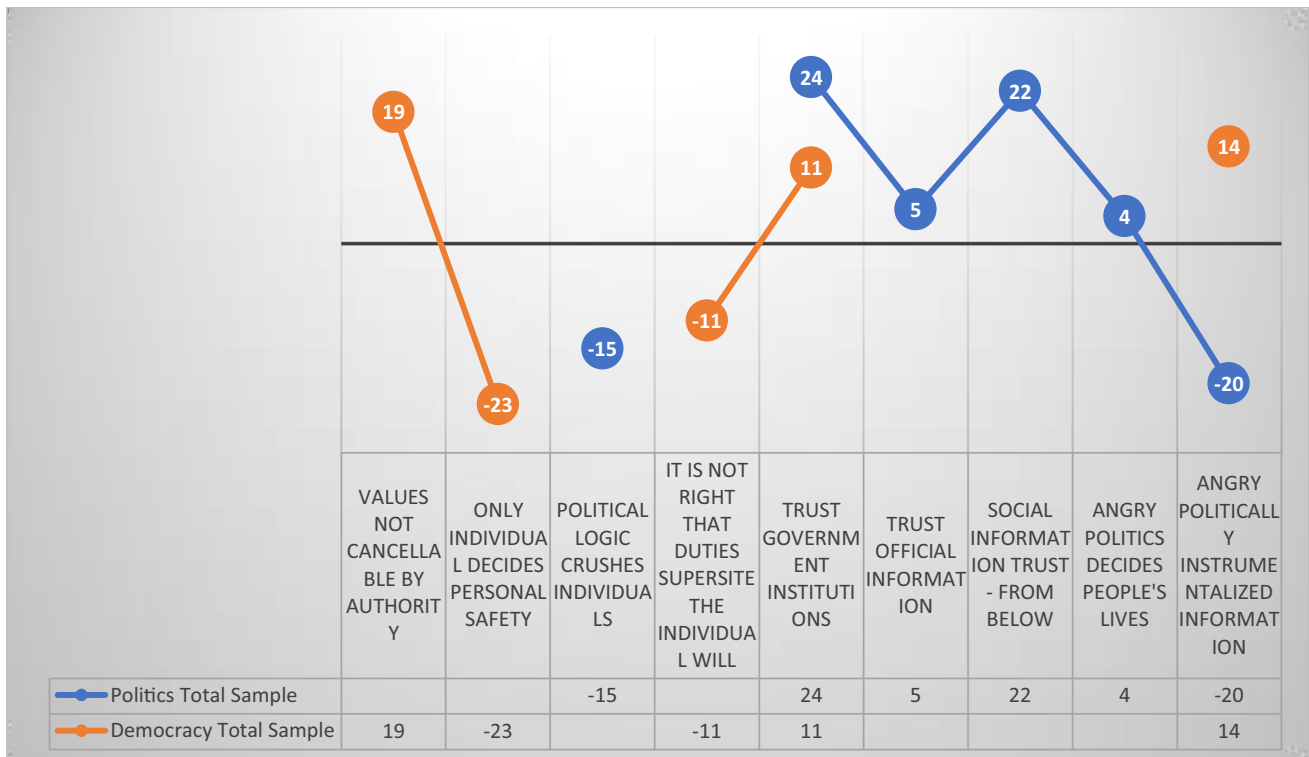
	VALUES NOT CANCELLA BLE BY AUTHORIT Y	ONLY INDIVIDUA L DECIDES PERSONAL SAFETY	POLITICAL LOGIC CRUSHES INDIVIDUA LS	IT IS NOT RIGHT THAT DUTIES SUPERSITE THE INDIVIDUA L WILL	TRUST GOVERNM ENT INSTITUTI ONS	TRUST OFFICIAL INFORMAT ION	SOCIAL INFORMAT ION TRUST - FROM BELOW	ANGRY POLITICS DECIDES PEOPLE'S LIVES	ANGRY POLITICALL Y INSTRUME NTALIZED INFORMAT ION
Politics Total Sample			-15		24	5	22	4	-20
Democracy Total Sample	19	-23		-11	11				14

Fig. 2 Comparison of the Values associated with the concepts "Democracy" and "Politics" by the subjects of the entire Sample

The value expressions are attributable to "Democracy" foreground anti-authoritarianism and the centrality of the individual, exemplified by the expressions "Values that cannot be annulled by authority" (19%); "Only the individual decides personal security" (− 23%)[3]; and "I want to be the one to determine my values" (10%). The general sample then attributes a negative rating to the expression "It is not right that duties override individual will" (− 11%) when associated with the concept "Democracy".

For "Politics", we find a positive evaluation of value expressions such as "Trust in government institutions" (24%); and "Trust in social-bottom-up information" (22%). The concept "Politics" is therefore negatively associated with the expressions "Political logic crushes individuals" (− 15); and "It makes me angry that information is politically exploited" (− 20%).

Value expressions associated with "Politics" and "Democracy", the first is "Trust in government institutions"; a concept that correlates for 24% with "Politics", while "Democracy" correlates for a lower percentage (11%). The second value expression, which is found both in correlation with "Politics" and with "Democracy", is contained in the expression "I want to be the one to determine my values", which records a 10% correlation with the word "Democracy" and only 2% with the word "Politics".

A possible synthesis that emerges from the concatenation of the primary value phrases associated with the objective term "Politics" would be the following (when the correlation is negative, the overturning meaning of the phrase expressing the value is used). According to the European sample, "Politics" is primarily a «cultivation of trust in national and international governmental institutions (24%), corroborated and moderated, this trust, by an equivalent trust in social

---

[3] When the correlation is negative, the questionnaire's corresponding expression 'values' is expressed in reverse. The direction of influences is supposed to start from the mean weight of the concept: positive (+ 0.59) for Democracy, Negative (-0.47) for Politics. For instance: The value phrase "Only the individual decides personal security" (-23%) as the percentage of negative correlation with the high-grade connotation of Democracy (+0.59) will be interpreted as "in Democracy Individuals DO NOT have to decide about personal security". On the contrary, Politics is down-graded connotated. The result is that the value phrase "It makes me angry that information is politically exploited", which reaches -20%, should be interpreted against low-quality/low-level Politics, stating something like "Politics makes me angry because it exploits information". For the concept of Democracy, positive connotation and negative correlation will result in a simple reverse interpretation of the second term. For concept Politics, negative connotation and negative correlation will result in a positive interpretation of the phrase. In this last case, we propose to turn the meaning via the double negation.

information spread from below (22%). We must keep an eye on Politics because, unfortunately, it makes one longer angry that information is exploited by it (− 20%). Moreover, consider it as the logic of a certain policy by crushing individuals (− 15%). Trust in the official information of newspapers and other media is there, but it only counts for 5%.»

Similarly, the meaning that seems to emerge from the choices of the entire sample of value phrases associated with the word "Democracy" could be expressed by saying: «Democracy is, first of all, the conviction that only the individual decides what makes him feel secure (− 23%), also because individual values cannot be annulled by the obligations of authority (19%). Of course, it is angry that information is politically exploited (14%), but it is "considered right that duties override individual will" (− 11%). Democracy requires "trust in national and international governmental institutions" (11%), leaving it to the individual himself "to determine the values to be followed" (10%).»

3.5 Semantic differences attributed to Democracy and Politics based on political orientation

The research also required the political orientation of the respondents. The distribution of subjects based on the five main political orientations was: Conservatives 22.6%, democrats 22.5%, Socialists 20.3%, Greens 15.3% and Left 19.2% (for a complete lookout, see OSF). A multivariate analysis was run to verify whether there is a statistically significant difference in evaluating the semantic differential of the 16 survey words by the five samples selected according to the political orientation chosen by the subjects. An attempt was thus made to detect whether and what political "character" distinguish the five policy orientations extracted from the overall research sample.

Starting with Conservatives, it is clear that for them, Politics can be summarised in only two points: "logic that crushes individuals" (37% saturation) and Politics as a force that overwhelms the will of the individual (− 63%). Again for Conservatives, "Democracy" takes on a much more articulated physiognomy, summarised in the first place in trust in government institutions (29% saturation) and in judging it tolerable that information is instrumentalised by Politics (27%). In the sample of Conservatives, some trust is maintained in bottom-up information, such as social media (19%). Finally, although the sample believes that one can get angry in a Democracy when the authorities dictate orders (10%), at the same time, they justify—for a − 10% of the overall composition of the concept "Democracy" —that duties can be pre-eminent over individual will.

Even for the group of subjects in the sample who are recognised as having a Christian Democrat political orientation, it is, above all, the concept of "Democracy" that can be defined with a few (three) expressions: the values of the individual cannot be annulled by authority (51% saturation); that it cannot be only an individual who decides about personal safety (-35%); and that, finally, it is always the individual who determines the values to be followed (14%).

On the other hand, the constellation of value expressions associated with the concept of "Politics" for the Christian Democrat sample is articulated. For them, "Politics" is primarily defined by "trust in government institutions" (32%). Between 18 and 13%, we find distributed four value expressions such as "the logic of politics only partially crushes individuals" (− 18%), and only the individual decides on personal security (17%). In Politics, the Christian Democratic Group says authority nullifies values (− 14%). In terms of information, official information enjoys a certain confidence in this group (13%). In contrast, even if only -6%, it appears that for the Christian Democrats, there does not seem to be any particular adverse reaction to the fact that information can be exploited politically.

For the Christian Democrats, there is a contrast between Politics and Democracy in two value expressions: "The values in which an individual believes cannot be annulled by the obligations of authority", concerning which Democracy abundantly admits that Authority can indeed impose itself on the individual (51% for Democracy against -14% for Politics); and the expression "Only the individual can decide how to protect his security", concerning which, the declination to Politics records a positive correlation (+ 17%), while declined to Democracy the correlation becomes negative (− 35%).

The Socialist spirit is characterised by a more complex articulation of the intertwining between Politics and Democracy. A clear anti-authoritarian choice characterises the Socialist conception of Democracy: for 42% of the associations, Democracy is linked to the expression "It makes me angry that information can be exploited politically" and, for 30% of the associations to the expression "The values in which an individual believes cannot be annulled by the obligations of authority". Then follows a sort of moderation to the announced "aversion to the control of the Authority" through three value expressions, each with a percentage of -8% (that is, with a minus sign): 1) it is not the only individual who can decide on his personal safety; to which to add that 2) it has its reasons of justice that the field of duties imposes itself on personal will; to end with the statement that 3) we should not be too scandalised if the authorities dictate orders to people. Trust in government institutions is worth 4% for the Socialist sample.

The value associations with the concept of Politics of the Social democrats see precisely in the expression "Trust in national and international governmental institutions" the leading share of meaning absorbed by the very concept of

Politics (29%). This "trust" upwards of the institutions is "balanced" by 27% of the "bottom" trust of social-disseminated information. For the sample declared Socialist, Politics does not crush the individual (− 15%), nor should one get too angry (− 11%) whether or not Politics exploit the information and, finally, authorities dictate orders (− 17%). One could thus summarise the Socialist position in the face of the value solicitations of the concept of Politics by stating that it is substantiated by a constant "suspicion" towards the Authority, moderated by a recognition of how the individual must, in any case, submit to some form of direction and control by the same.

The analysis of the sub-sample that declared itself to be of political orientation close to the grouping of the Greens produced a less statistically significant result in the associations with the concept of "Democracy": none of the effects of the averages estimated by the linear regression model reaches a probability value (p. *value*) lower than 0.5%, a level of significance instead run by the associations with the word Politics. Starting from the latter, for the Greens sample, Politics seems to be based on information from institutions (26%) but, above all, from the bottom (32%). It can therefore be said that, for the Greens, Politics is, first and foremost, information! It can be seen that the Greens have a savvy attitude towards Politics, which does not surprise them that it manipulates information (− 25%) and that it imposes values on individuals (− 17%). Although they do not reach a level of statistical significance, there are still three expressions of values that for the sample of the Greens orbit around the concept of Democracy: it cannot be the individual who puts himself in security (− 36%), there is trust in official information (34%) and the orders of authority can impose themselves on individuals (− 29%).

The sample that is part of the grouping of the Left places the concept of Democracy in which "The individual can decide how to protect his security" (− 38%). Democracy and "trust in institutions" constitute, for this sample, a positive relationship (25% saturation of the concept). In comparison, the anger resulting from the imposition of Politics on individuals is almost considered consubstantial to Democracy (+ 29%), so much so that, in association with the concept of Politics, we find that this same anger assumes a negative value (− 27%), as if, in descending to the political-applicative level by Democracy, the control of individuals becomes a fact that is not surprising. In the conception of the Left, Politics is described mainly with negative signs of correlations to value expressions. One possible interpretation is that Politics is devalued and viewed by the Greens in a pessimistic, if not cynical, way. One could paraphrase this position by saying that the 'worst policy' "crushes individuals" (− 20%), diminishes "reliance on social information" (− 27%) and causes anger at information manipulation (− 16%).

3.6 Focus on the semantic constellation of the Climate Crisis

In the 16 verbal expressions examined by the semantic differential, there is also "Climate crisis" for the evident association with a crisis of not short duration and not an easy solution, such as a Permacrisis. The average of the responses recorded by the national samples places the assessment of the concept of Climate Crisis in a "neutral" position. The average of the entire research sample is -0.06; for the national ones, we find Italians − 0.07, French − 0.04, British − 0.006, German − 0.21 and Polish 0.12.

From these data, it could be concluded that for the sample that participated in the research, the Climate Crisis is not evaluated as particularly serious for the current socio-historical condition, given the placement in a semantic-affective position indifferent to other contents already seen in this research.

Therefore, by placing Climate Crisis at the centre of the correlations detectable through the automatic linear regression modelling of SPSS, it is possible to reconstruct the semantic constellation that surrounds a concept so challenging for the fate of future societies as Climate Crisis but placed in the background of the criticalities according to the sample's findings.

The European sample of 1273 subjects rates the Climate Crisis as highly aggressive (see OSF). As many as 53% of correlations with this concept are saturated with Aggression. The assessment of the Climate Crisis also involves a correlation with the Economic Crisis for 21% of associations and 14% with the Border. The average of the evaluations of the individual word pairs of the semantic differential of the concept of Border stands on the slightly positive side, close to the neutral, of the same (such as "useful", "valuable", "clean", and "sweet"), almost as if Border mitigates the deleterious effects of the Climate crisis, which instead provokes reactions of "unpleasant" aggression and brings an "undesirable" Economic crisis! In the overall sample, there are two other expressions statistically linked to Climate Crisis, such as Military (9%) and Defensive War (− 3%).

Following the order of saturation of the concepts related to the Climate Crisis and lining up the main words of the semantic differential that have achieved a higher average in the polarity of aversion (denoted by the negative sign) or in that of attraction, we can try a narrative or metaphorical transposition of the opinion of the sample (in brackets the score of the average recorded in the pair of words of the semantic differential). For the European champion: «Ugly (− 0.81), bad

(− 0.72) and unpleasant (− 0.67) aggression is accompanied by the ongoing Climate crisis. In particular, the Economic crisis, also ugly (− 1.06) and bad (− 1.00), is decidedly undesirable (− 0.91). Some mitigation could perhaps take place thanks to the idea of a useful (0.34), value (0.32) and clean (0.28) border. Similarly, the military's role appears useful (0.37) and of value (0.35). In a very residual mode (− 3%), a defensive idea of War towards the Climate crisis is inversely related. This means that the higher the assessment of the Climate crisis, the less one can rely on the idea of some form of Defence as if a war were taking place. Defensive warfare receives connotations from words such as ugly (− 0.77), unpleasant (− 0.68) and bad (− 0.64). Alternatively, the opposite is also true, namely that the lower the assessment of the Climate crisis, the greater the importance of defensive warfare.»

The Italian sample (see Graph 24) assigns a 49% saturation to Aggressiveness when placed with the concept of Climate Crisis according to the automatic linear regression modelling of the SPSS statistical program. Italians also assign a 23% saturation to Economic crisis, designating it with words equal to Aggressiveness ("ugly", "bad", "sad") but also "unpleasant". In the associations with Climate Crisis, 21% of association with Border emerges, which is represented with terms that would seem to be 'correctives' to the previous ones, such as "useful" and "good" or, adding other terms such as "valuable" and "desirable".

The discursive transformation through the words of the semantic differential that most participate in saturating the concept of Climate Crisis can take the form of the Italian sample that is transcribed below: « The sample of Italians with Aggressiveness associates Climate crisis through a plethora of adjectives, such as ugly − 1.06, bad − 0.82, useless -0.78, sad -0.78, undesirable -0.77, sour -0.72, in which the term "unpleasant" stands out for saturation (25% saturation: -0.76 the average to the semantic differential). The Economic crisis also looks ugly (− 1.30) and bad (− 1.18). The Economic Crisis combined with the Climate Crisis also adds sadness (− 1.15), unpleasantness (− 1.09) and a sour taste (− 1.03) that makes this association undesirable (− 1.03). The border is instead a concept characterised as useful (0.50) and value (0.43) and also good (0.38), clean (0.36) and, therefore, desirable (0.36). The military receives recognition with terms such as utility (0.45) and enhancement (0.36).»

For the French (Graph 25), the combination of Aggressiveness and Economic Crisis is mainly at work. Saturated aggressiveness, in fact, for a 49% Climate crisis. Words like "ugly" and "bad" return in 34% of the correlations of Economic Crisis with Climate Crisis. The two 'original' terms of the French sample for Economic crisis are, therefore ", sour" and "undesirable". Border correlates for only 7% with the Climate crisis. The French assign the "uselessness" of a defensive war against the Climate Crisis with a percentage of 10% (−). Therefore, alongside a tenth of the associations between Defensive War and Climate Crisis words such as ugly (− 0.63), sour (− 0.49), unpleasant (− 0.47), sad (− 0.44) and sour (− 0.40), as we can see, are all at the negative sign, could mean that the more the overall negative connotation of war 'defensiveness' is accentuated, the greater the enhancement and importance of the concept of Climate Crisis. As if to say, in short, that for the French, we certainly cannot hide behind a possible war of Defence in the face of the spread of the Climate crisis!

The narrative form of the chain of associations between the words of the semantic differential and the Climate Crisis for the French sample takes the following form: «The Climate crisis is accompanied by a sense of aggression characterised by tones of uselessness (− 0.70), ugliness (− 0.70), malice (− 0.62), sadness (− 0.62) and unpleasantness (− 0.62). Similarly, the Economic crisis is judged ugly (− 0.89), bad (− 0.84), sad (− 0.69) and bitter (− 0.73), which condemns it to undesirability without appeal (− 0.72) the Climate crisis.»

From the calculation of the averages of the concept of Boundary of the sample French, it emerges that words with a weak positive sign (useful 0.17; valid 0.14) and words also mildly with a negative sign (unpleasant − 0.12; ugly − 0.25) compete for a space that we could call ambivalent. It revolves around the neutrality of the connotations of the words of the semantic differential as if it were not clear where to place the conceptual force of the word with the globality of the phenomenon of global warming!

For the British (Graph 26), the Climate Crisis is associated with a semantic constellation with a military aspect. 20% of associations with Climate Crisis are absorbed by evaluating the words related to Military in the semantic differential. The British also record an inverse correlation with the Defensive War equal to 18% (−), as if to say that the less a form of Defence operates, the greater the evaluation/attention to be assigned to Climate Crisis. Even for the British, the Economic crisis is accompanied by the Climate Crisis for 35% of the overall saturation.

The potential discursive translation of the words of the semantic differential that the British leads have mostly chosen take a formulation such as the following: "The Climate Crisis is associated for a third of its semantic field (35%) with the concept Economic Crisis, which is decidedly on the aversive side of the words of the semantic differential itself: cold (− 1.07), ugly (− 1.02), useless (− 0.92), bad (− 0.88) and undesirable (− 0.85). However, the concept expressed by the term Military occurs in the associations of the British sample for quite half of the semantic space. It should be noted, then, that Defensive War counts for 18%, thus bringing two concepts of the military area to a percentage of 43%. The military

is coloured by terms such as sweet (0.51), clean (0.44), happy (0.39) and beautiful (0.28), which, although the average of each of these words is just above zero, all bend to the side of the positive/attractive evaluation of the concept itself. Defensive warfare is expressed in terms such as cold (− 0.62), undesirable (− 0.58), bad (− 0.57), worthless (− 0.50) and ugly (− 0.47). The correlation of 18% of defensive war with the Climate crisis is negative. It, therefore, must be interpreted according to an inverse relationship between the concepts (more Defence war and less Climate crisis, for example).»

One could thus prove a synthetic interpretation of this considerable slice of associations between warlike notions of the British sample with the Climate Crisis, stating that a positive consideration of the role of the military, accompanied, in this case, by a defensive position (Defensive War) could limit or make less severe the assessment of the Climate Crisis. This interpretation (as opposed to that found in other national samples with the same mix of concepts) is also supported by the weight of 6% assigned to the Borders concept by the British. This notion is connoted with terms such as sweet (0.66), happy (0.61), useful (0.60), beautiful (0.56) and warm (0.54).

As can be read from Graph 27, in Germany, the Climate Crisis arouses, above all, Aggressiveness, considering that this concept results in the analysis of the linear regression associated for as many as 70% with the Climate Crisis. As with other nationalities, Economic Crisis (12%) and Border (4%) also fill associations with Climate Crisis. Covid-19 virus is found only in the German sample associated with Climate Crisis. The Germans are also the sample that attributed an average more negative assessment of the Climate Crisis. The average semantic differential word score for concepts associated with Climate Crisis is equivalent to -0.8 for Germans (the average of the other national samples is: Italians − 0.13; French − 0.39; British − 0.23; Poles − 0.46).

Going to see the words of the semantic differential that the German sample has most recorded, we find a possible narrative formula in the following text: «Aggressiveness, which for as much as 70% of the space of associations saturates the concept of Climate Crisis, can be connoted with the adjectives that are found in all European champions: ugly (− 1.06), bad (− 1.02), sad (− 0.90), unpleasant (− 0.90) and undesirable (− 0.85). Covid-19 virus (bad − 1.56, ugly − 1.49, unpleasant − 1.44, sad − 1.44 and undesirable − 1.36), which only for Germans enters the semantic field of Climate crisis, presents itself with average values that connote it as strongly negative. The hypothesis that viruses and Aggression constitute a detrimental pair for the Climate crisis is strengthened, considering that 12% of the attribution to the Economic Crisis to participate in the aggravation of the Climate crisis records very high negative values in Germans. The Economic crisis is very bad (− 1.26), ugly (− 1.24), sad (− 1.21), unpleasant (− 1.18) and undesirable (− 1.17). On the role of the concept of border, the German sample oscillates between terms connoted to the negative, such as unpleasant (− 0.22) and sad (− 0.19) and terms connoted to the positive, such as useful (0.12) and value (0.18), thus highlighting an ambivalence between appreciation of borders even if this involves sadness and a feeling in some way unpleasant.»

For Poles, the Economic crisis is associated with assessments of Aggression alone (41%) and violence (10%), which reaches 51% of the overall saturation of the Climate Crisis concept. The Polish sample evokes the border decisively (35%) (perhaps as a protective barrier to the Climate crisis?). The Economic crisis is present (14%), with saturation values more in the background when compared with other samples.

The text that would derive from the concatenation of the words of the semantic differential that received a higher score would be as follows: "For the Polish sample, Climate Crisis concentrates in itself is Aggression and even Violence, with the same words, but which in the version associated with violence receive an even more negative average rating. Aggressive Aggression and violence that are ugly (− 0.45 and − 1.22 respectively), bad (− 0.42 and − 1.20), sad (− 0.40 and − 1.18), dirty (− 0.33 and − 1.06) and unpleasant (− 0.32 and − 1.14) are associated in the Polish sample with the Climate crisis, which in this case takes on the even brighter colours of aversion because it is denoted as violent. A Boundary as valuable (0.42), useful (0.30), warm (0.28) and beautiful (0.23) seems to evoke some form of protection from the violent Climate crisis. An ugly (− 0.86), sad (− 0.84), bad (− 0.83) and cold (− 0.78) Economic crisis concludes the Poles' assessment of the conceptual representation of the term Climate Crisis.»

4 Discussion

The count of the average responses given by the research sample to the 16 target words through the semantic differential shows that World War III, Invasion and Violence are the concepts that can be considered among the major concerns of Europeans. In addition, in all five samples and the general one, the word Permacrisis appears among those most opposed. So, Invasion, Pandemic, Permacrisis and Violence are the 'black poker' of the socio-affective referents that most harass Europeans.

From the research data, the feeling of going through a period of deep crisis unites all the sample subjects. Negative connotations are more numerous and of a higher value than positive ones.

The national data on the terms most associated with the concept of Permacrisis tell of a difference between the five samples that can be summarised with the affirmation of a common fear of issues related to weapons and war (any reference to the invasion of Ukraine would be legitimate). In the Polish sample, there is also the fear of an invasion, which is understandable given the proximity to Russia. French and Italians are also frightened by the spread of weapons, but it is, above all, Italians who record a 50% presence of the word Weapons as a term related to the Pandemic. In the case of the Italian sample, Weapons are associated in a homogeneous 'block' of as much as 79% with other terms of the semantic area related to war (Aggressivity, Invasion and Nuclear weapon).

The association between the Economic crisis and the pandemic is found critically, especially in the German and Polish samples and, to a much lesser extent, in the Italians and the British. Moreover, in the British sample, the word Border is evaluated by partially positive connotations, perhaps not by chance, considering the exit of the United Kingdom from the European Union in January 2022.

Note that in the British more Politics correlates with more Permacrisis. For Italians, on the other hand, more Democracy is indeed associated with less Permacrisis. The evaluation assigned by the research sample to the concepts of Democracy and Politics is particularly rich in suggestions.

Only Democracy (average 0.4), Border (0.20) and Military (0.14) scored positively from the entire sample. This trio of interests could be linked precisely by the particular historical moment in which the Russian invasion of Ukraine and the growing waves of immigrants from the South world could explain the growing evaluation of a "military" that guards the borders of democratic nations.

As can be deduced from the processing of data associating emotional expressions with the concept of Permacrisis, the five national samples differ in the percentages they attribute to the affective representation of the concept. In Italians, anguish dominates, precisely of losing strength and remaining stuck in development ("time no longer goes on"), with the aggravating circumstance of an anxiety of isolation and loneliness that certainly increases the negative connotation of the emotions aroused by a long-term crisis.

The French sample distributes the emotional reaction to the Permacrisis between anguish, fear and anger. As the psychology of dynamics and emotions teaches [2, 3], faced with a disabling emotion that makes it as powerless as anxiety and anguish, the activation of anger allows one to find some escape route that helps one to shake off the sense of powerlessness. 56% of the reactions of the French are characterised in terms of anger. In particular, anger dominates due to not being heard or understood in one's motivations. Precisely these last two forms of anger seem to be related to the widespread protest aroused by the plans of the French government, mobilised precisely in the weeks of administration of the questionnaire (the reference to the Macron government's policies does not seem accidental).

The British are dominated by the anguish of no longer counting on anyone. This social anxiety creates a prominent *vulnus*, counting, in fact, 78% in association with the concept of Permacrisis.

Anguishes and anger are divided in half in the Germans' responses. The anguish of losing strength and that time does not continue in its development create a parallel with the Italian champion. In the Germans, however, the 'healthy-angry' reaction is very present: "anger aroused by not being understood", forced against the one's will and by receiving limiting impositions.

The anguish of the condition in which Poles currently find themselves about the Permacrisis puts the accent above all on the anguish of being invaded and the fear of not being heard. The reference to the extreme tension that Poland is going through in these months of war between two historically very cumbersome neighbours, such as Russia and Ukraine, offers an entirely reliable explanation. It should be noted that statistical analysis also reveals a fear of power in the Polish sample. Unlike anguish, fear identifies a specific object as the cause of the emotion. One thinks of the fear that part of the Polish population, together with many European countries, has regard to respect for certain fundamental principles of Democracy by the political authorities in Poland.

Democracy and Politics result from the research of two concepts that travel on parallel connotative planes that only occasionally meet, remaining globally evaluated in opposite ways: Positive Democracy and Negative Politics. Here an interpretative hypothesis of this opposition is put forward, according to which Democracy pertains to the plane of the ideal, and Politics falls within the specific and "earthly" actions of the class of politicians. Phrases such as "Political logic crushes individuals" and "It makes me angry that information is politically exploited sign a negative correlation for − 15% and − 20%, respectively, which are very strong weigh in the evaluation of Politics by the entire sample.

Political affiliations show differences in considering the relationship between Democracy and Politics. For Conservatives, in a Democracy, duties come before the individual will, and Politics is the force that realises this collective pressure on the individual.

In representing subjects of Christian democrat, the concept of Politics differs from that of Democracy for a consistent assent towards the Authority generally understood.

The vision of Politics that emerges from the responses of the Socialist sample appears to be in tune with *realpolitik* in some way. Politics is to give confidence to institutions and, at the same time to social-popular information. That is Politics: one should not be troubled and angry at the impositions and control of information by the authority, which dictates orders to the individual, which seems to be precisely the figure of a rather historicised conception of Politics for the Social democrats. Accepting the power of authority brings the two conceptions of Politics and Democracy closer together through the Socialist sample.

Due to the political character of the Greens, information, also present in the association with Democracy (34%) and the subordination of individual "egoism" to the "ecological" orientations of the political authorities, constitute a whole. On the other hand, the statistical elaboration did not show significantly relevant correlations of the concept of Policy for the Green sample. Whether this indicates a certain political "openness" or, for others, a sort of "transformation" in Politics on the part of Green sympathisers is unknown.

For the Left, it seems that Democracy and Politics are placed on two completely parallel dimensions, meeting-clashing precisely where the individual risks being deprived of his freedom to decide.

The concept of Climate Crisis fits only partially into the warmer core of the concepts describing the permanent crisis. The focus of the concept of the Climate crisis has brought out that it is perceived as very aggressive and even violent in the case of the Polish champion. The association between the Climate crisis and the Economic crisis is confirmed. Less predictable is the appearance of associations between the Climate Crisis and Border and Defensive Warfare, mainly when the latter establishes an inverse correlation. Could the Climate Crisis be contrasted with an action inspired by the war metaphor, as it seems pretty in the strings of the British sample (but also in the Polish and partly French one)?

5 Conclusions and future perspectives

Research shows that Europeans judge these last few years as harbingers of an ongoing crisis, which combines the recent global Covid-19 pandemic and the violence of a world war always at the door, in which nuclear weapons dramatically return to the scene.

From the methodological point of view, it can be concluded that the semantic differential is confirmed as an instrument sensitive to the spirit of the times, interpreted as a social Climate in place when it is proposed to a sample of subjects. In this way, we can endorse the theoretical assumption of the semantic differential itself of an instrument that, through the emotional connotations of adjectives, succeeds and outlines a profile of the emotional condition of people.

After all, as Dora Capozza [1] recalls, emotions have been considered since the time of Wilhelm Wundt, a somato-psychic state sensitive to present-time stimuli. From this consideration, it follows that the application of the semantic differential should be repeated at regular intervals to trace the trend of the 'emotional pulse' present in a given population.

Declarations

Ethics approval The questionnaire and methodology for this study were approved by the Human Research Ethics committee of the University of Bergamo: «MINUTES N. 03/2023 OF THE ETHICS COMMITTEE SESSION OF 03/15/2023. On 15 March 2023, at 10.30, the Committee for Research Integrity and Ethics of the University of Bergamo met electronically as required by Article 6 Paragraph 3 Regulation for the functioning of the Committee for Research Integrity and Ethics (DR rep. 388/2016 prot. 81201/I/3 of 07/18/2016).»

References

1. Capozza D. The semantic differential. Theoretical and metric problems. Patron; 1977
2. Damasio A. Descartes' error. Milan: Adelphi; 1995.
3. Freud S. The interpretation of dreams, 2001. London: The Hogarth Press; 1900.
4. Laplanche J, Pontalis J-B, Lagache D, Smith DN. The Language of Psychoanalysis. London: Taylor and Francis; 2018.
5. Ogden CK, Richards IA. The meaning of meaning. Harcourt Brave Jovanovich, 1989.
6. Osgood CE, Sebeok TA. Psycholinguistics: a survey of theory and research problems. Indiana: Indiana University Publications in Anthropology and Linguistics; 1954.
7. Osgood CE, Suci G, Tannenbaum P. The measurement of meaning. Indiana: Indiana University Press; 1957.
8. Osgood C. Semantic differential technique in the comparative study of cultures. American Anthropologist , Jun., 1964, New Series, Vol. 66, No. 3, Part 2: Transcultural Studies in Cognition; 1964, pp. 171–200. https://doi.org/10.1525/aa.1964.66.3.02a00880.
9. Osgood CE. Exploration in semantic space: a personal diary. J Soc Issues, 27 (4).
10. Vanhercke B, Sabato S, Spasova S, eds., Social policy in the European Union: state of play 2022, Policymaking in a permacrisis, ETUI and OSE. 2022.
11. WHO. The European Region is in a "permacrisis" that stretches well beyond the pandemic, climate change and war, Statement by Dr Hans Henri P. Kluge, WHO Regional Director for Europe. https://www.who.int/europe/news/item/27-09-2022-statement-the-european-region-is-in-a-permacrisis-that-stretches-well-beyond-the-pandemic-climate-change-and-war. Accessed 27 Sep 2022.
12. Wright S. A year of 'permacrisis'. Collins Dictionary Language Blog. 2022. https://blog.collinsdictionary.com/language-lovers/a-year-of-permacrisis/. Accessed 1 Nov 2022.
13. Zatti A, Riva N. Anguish and fears about attitude towards covid-19 vaccines: contrasts between yes and no vax. Discov Psychol. 2022;2:26. https://doi.org/10.1007/s44202-022-00038-2.
14. Zuleeg F, Emmanouilidis JA, Borges de Castro R. Europe in the age of permacrisis. EU Governance/Commentary, European Policy Center; 2021

Discover