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POWER RELATIONSHIPS IN GRETA THUNBERG'S SPEECH ABOUT WORLD CLIMATE CHANGE

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ABSTRACT

A Climate change is a global environmental threat. The economic, social and environmental consequences have been discussed by climate organizations and activists. The emergence of political changes linked to environmental issues has fueled protests around the world because there are many discussions and few concrete results. The aim of this study is to analyze linguistically-discursively the power relations in the speech of environmental activist Greta Thunberg and what Sociology of the Environment has discussed regarding the participation of society in environmental protection policies. The climate change activist's speeches are selected from the internet. Discourse analysis is used under the theory of Perelman (2005) considering argumentation as a form of persuasion and Foucault (1999) about discourse and power. The analysis by Dunlap (2015) and Okereke (2018) follows, following the stream of Chateauraunaud's pragmatic sociology (2005). The results show that there is a prevalence of a persuasive discourse aimed at the climate crisis, in an attempt to highlight the emergencies and the strength of the new generation for political movements. It is concluded that public policies are guided by concrete actions based on social movements, not only in terms of social movements based on environmental awareness, but also on the demands of the next generation and forms of power through discourse.

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INTRODUCTION

According to the Intergovernmental Panel on Climate Change (IPPC), the term "climate change" refers to any climate change that has occurred over time, whether due to natural variability or as a result of human activity (IPPC, 2007). The climate is a complex system, whose components are: the atmosphere, biosphere, cryosphere, hydrosphere and lithosphere. All of these components of the climate system are interconnected. Thus, climate change comprises a systemic connection in which one factor acts as a forcing on another, for example: the increase in temperature can fuel displacements of sea currents, melting glaciers, among other consequences with potential for serious damage to the environment. Climate change may be associated with global warming, but there are differences between these two concepts. Global warming is directly connected to the rise in temperature, while climate change encompasses changes in all variables of the climate system. Rich (2018) describes that the long-term impact of the release of carbon dioxide (CO2) into the atmosphere will be the consequent increase in global temperature, which has risen by an average of about 2 ° C to 3 ° C in recent decades. Anthropogenic emissions of greenhouse gases have been identified as the main cause of climate change. These changes can take place in the short term (anomalous climatic events, such as floods, droughts, heat waves, storms and rising sea levels) and in the long term (such as the systematic increase in local or global temperature) (WU *et al*., 2020). Although the topic of climate change has only recently made headlines in the media, this science has a long history. Jean-Baptiste Fourier, in 1827, studied the effect of heating the air inside glass greenhouses and concluded that this would be repeated in the Earth's atmosphere. He was the first to formalize a theory about the effect of greenhouse gases. In 1860, Joh Tyndall measured the absorption of heat by carbon dioxide and water vapor. He was the first to introduce the idea that major changes in the average temperature of the Earth, which resulted in extremely cold times (such as the so-called "ice ages") or very hot times (such as that which occurred at the time of the transition from Cretaceous to Tertiary), could occur due to variations in the amount of carbon dioxide in the atmosphere. Also, Svante Arrhenius calculated, in 1986, that doubling the amount of carbon dioxide in the atmosphere would increase its temperature from 4 ° C to 6 ° C. Arrhenius came very close to the values currently estimated, which are from 2 ° C to 4.5 ° C (ARCHER and RAHMSTORF, 2010). The climate varies naturally across time and space scales. Scientists are able to attest to this by monitoring the Earth's climatic variation over the last 800,000 years, which can be proven from the record left by the air bubbles trapped in the Antarctic glaciers (HANSEN and SATO, 2012). In the last 100 to 150 years, the rate at which the temperature has risen is

significantly higher than in previous periods. For example, in the last glaciation, 20,000 years ago the planet's surface was 5 ° C to 6 ° C colder and it took the Earth 10,000 years to warm up and enter the interglacial phase, called the Holocene. Now, in the past few decades, it has been warming up to 0.2 ° C per decade, which is 50 times faster than the natural glacial-interglacial cycle. If this were only due to natural variability, there would be a need to explain what would justify the planet heating up at such an amazing speed, atypical in relation to the records of several million years (NOBRE *et al*, 2012).

According to NASA studies, the planet's temperature has risen by just over one degree Celsius (1 ° C) since 1880. Two-thirds of the warming has occurred since 1975, at a rate of approximately 0.15 ° C and 0.20 ° C per decade (NASA Earth Observatory, 2019), as mentioned earlier. According to the NOAA (National Oceanic and Atmospheric Administration, 2019), in the last year there was the highest rate of temperature rise since the beginning of historical records in 1880. In 2019, the average temperature across the continental and oceanic surface was 1.71 ° F (0.95 ° C) above the 20th century average (NOAA, 2019). Much of this warming is associated with an increase in the concentration of carbon dioxide in the atmosphere due to the burning of fossil fuels and the use of petrochemicals. And since, to date, there have been no significant measures to reduce carbon emissions at world levels, humanity is facing an imminent climate crisis that may imply the destruction of life on Earth in a few decades, since the IPCC (2001) projects a global rise in the average planetary temperature from 1.4 ° C to 5.8 ° C by the year 2100. As highlighted by Loy and Spence (2020), most scientists express urgency to mitigate the impacts of climate change to have quality of life on Earth. McFarland, Webb and Brown (2012) and Reese (2016) point out that, for this to be possible, a unified conscience is necessary, that is, the importance of building a global identity for people. The studies by Shome and Marx (2009); Van der Linden, Maibach and Leiserowitz (2015) emphasize that discussing climate change and local consequences can be an effective communication strategy to bring the subject closer to society. Since, when changes can be more noticeable in the community where you live, the need for changes in socio-environmental behavior becomes more evident. Concern about climate change has grown worldwide, as the consequences of climate change have been increasingly frequent and disastrous. For McNut (2013), the vision of the future is not optimistic. The trend is that the changes caused by climate change are faster than the adaptation of species, which can lead to widespread extinctions. In addition, even the most tolerant species can decline as the ecosystems on which they depend collapse. Consequently, there is a chain effect.

The IPCC was created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Program. It has the duty to evaluate all scientific, technical and socioeconomic information relevant to the understanding of the risk of human-induced climate change (Burch and Harris, 2014). Periodic evaluation reports (1990, 1995, 2001, 2007, 2014) are produced through 3 working groups: Group I - examines the causes of climate change, projected and observed changes in the climate; Group II - assess adaptation and impacts; Group III - examine strategies to prevent and mitigate the impacts of climate change. According to the IPCC's first assessment report (First Assessment Report, 1990), there was no evidence of anthropogenic warming of the planet that overlapped natural climate variability. However, it was anticipated in the report that global warming should be evidenced around the year 2000. However, this occurred earlier, in 1995, as the 2nd report concluded: “(...) the evidence suggests a noticeable human influence on the global climate”. This was further reinforced in the 3rd report (2001): "(...) There is new and strong evidence that most of the warming observed in the last 50 years is due to human activities". Finally, the 4th report (2007) concluded that it is 90-99% probable that global warming, since 1950, was caused mainly by the accumulation of carbon dioxide and other greenhouse gases (ARCHER and RAHMSTORF, 2010). Therefore, anthropogenic emissions of greenhouse gases have been identified as the main cause of climate change. These changes can take place in the short term (climatic anomalies, such as: floods, droughts, heat waves, storms and sea level rise) and in the long term (such as the systematic rise in local or global temperature) (WU *et al*., 2020). One of the impacts of climate change is the change in the level of the oceans. According to IPCC data from 2014 (2001), the global average elevation of the level of the oceans was from 0.17m to 0.21m in the period from 1901 to 2010, and the rate of elevation tends to be increased together with the elevation of the global temperature. In effect, the entire coastal sociogeoeconomy is gradually changing (TOIMIL *et al*., 2019). Climate change can also interrupt land-water connections, altering biogeochemical, hydrological cycles and diverse biosphere-atmosphere interactions. Consequently, aquatic and terrestrial ecosystems are modified, compromising the capacity of these systems to provide essential services for life (HÄDER; BARNERS, 2019). Another important adverse effect directly affects human health, especially in vulnerable areas that are densely populated. The impact of climate change with changes in temperature, precipitation and humidity, extreme weather events, such as floods and droughts, has increased human diseases, such as: the incidence of dysentery. According to data from the World Health Organization (WHO, 2016), about 23% of all deaths worldwide in 2012 were attributed to climate change (WU *et al*., 2020).

Eutrophication is also affected by climate change, as the excessive growth of aquatic plants and organic matter can interact with the pollution of microscopic plastic waste and the resuspension of sediments in shallow lakes, thus intensely affecting the quality of the environment for aquatic organisms. (variation in water temperature and salinity, increase in the duration and frequency of hypoxia events, water acidification) or even for human health, through the ingestion of contaminated water (SERVILI *et al*., 2020; ZHANG *et al*., 2020; BARRETO *et al*., 2013). According to the Brazilian Panel on Climate Change (PBMC, 2014), climate change is one of the most complex challenges of this century, and no country is immune to the possible impacts that may arise. The challenges are interconnected and comprise controversial political and economic decisions, as well as technological advances with far-reaching global consequences. At the same time, the Sociology of the Environment has reinforced the idea that climate change is a social issue, that is, it requires society's awareness to change habits, in addition to the adoption of public policies aimed at the preservation and conservation of the planet. In this sense, the objective of this study is to analyze linguistically-discursively the power relations in the discourse of Greta Thunberg, making a parallel with respect to the urgency and similarity of Nicholas Stern's ideas on the issue of climate change and what Sociology of the Environment has discussed as for individual and collective engagements, which have generated global environmental mobilizations through internet networks, greatly influenced by the new social dynamics and environmental protection. With so many negative consequences for the environment, environmentalists, experts and climate activists have promoted discussions in favor of environmental awareness, in the sense that both changes are already a reality (HORNSEY *et al*. 2016) and the fact that they are caused by man (McCRIGHT, 2010).

CLIMATE CHANGE: HISTORY OF POLITICAL, ECONOMIC AND SOCIO-ENVIRONMENTAL EMERGENCIES

Dunlap and Marshall (2003) show that environmental problems will be a constant concern in the 21st century and before being a purely environmental problem, it is social. In this sense, it is a social problem, as it results from human behavior and nature returns impacts to it. Therefore, in this conception, the need for man to make some effort to at least minimize these impacts is evident. However, as Perkins *et al* (2018) states, in principle, people accept the overheating of the planet with a degree of certainty, but resist the idea that this is due to human behavior - a fact that is changing the climate. In addition, the authors show the need to adapt society based on climate education, aimed at alerting students to the risks of climate change. Education for climate change has a fundamental role in training thinkers. In other words, it is a socio-scientific issue - a practice of education for sustainability (Sadler *et al*., 2004). From a practical and

contemporary perspective in the face of the activism of contemporary environmental movements represented by the generation of climate activist Greta Tintin Eleonora Ernman Thunberg, better known as Greta Thunberg, began her journey in 2018, only at the age of 15, primarily alone, but that soon afterwards he gained notoriety for his courage, perseverance, persuasion and for believing that an individual is capable of moving crowds. And she proved that this is possible, bringing the "truth" in her words, transmitting her concern for the environment and getting this truth to be replicated to each individual, making them believe that everyone is responsible for the changes in the world, each one is enough wanting to do what is within their reach, confident that the individual power is in an action on actions, that is, the individual is capable of generating collective effect. The Swedish activist's discourse has usually been aimed at world leaders as a way of showing the world that the climate crisis is a social issue and that technologies may not have the expected solution, if at present there are no indications of effective resources for resolving the climate situation. The words of urgency by climate activist Greta Thunberg reveal a warning and revolt discourse by the belief of world leaders that the situation is under control and that technology will solve all problems. From the moment he recognizes himself as "children" in panic, he encourages the interlocutor to reflect on how climate change can somehow have consequences for the future of children and, therefore, a warning discourse for the need for changes in the weather gift.

Furthermore, this line of thought bears a certain resemblance to the postulates of renowned economist Nicholas Stern, a former chief economist at the World Bank. In 2006, he prepared a report on the climate, known as the "Stern Review", in which he highlighted the need for urgency in investing today and not tomorrow, equivalent to about 1% of world GDP to mitigate now and reduce future impacts of climate change. It is worth remembering that the discourse of the activist is a model of "social authority", in the sense of giving representation to the new generation that will deal with the effects of climate change in the future and that it is not the intention of the authors of this study to place them on an equal footing. It is in this position that the adolescent's discourse has a social role to discursively reinforce the social responsibility of anthropogenic emissions. After all, the greater frequency of extreme climatic phenomena and environmental impacts caused by human activities, given the finite nature of natural resources, has generated environmental problems, which end up encouraging reflections on the dynamics around a more mature society today and more attentive to issues related to nature. A new relationship between society and environment emerged in the late 1960s and early 1970s, through the intellectual leadership of two American sociologists Riley E. Dunlap and William R. Catton, who most influenced the emergence of "Environmental Sociology". The contribution of these two sociologists in this field was considered a great success, in the opinion of Freudenburg & Gramiling (1989) because it provides: i) a new vision of sociology as focused on the social issues of the environment, in the sense that climate change has a social responsibility. *Global warming is caused by human* and must take responsibility for the effects of this change and take social measures; ii) the expansion of "human ecology" thinking, the emphasis on the reciprocal causal relationship between human activities and the physical environment; iii) their criticism of the unimportance of the physical environment for sociology; iv) the new ecological paradigm (NEP); and v) new debates drawing the attention of society in the United States of America (USA) to reflect on the "Dominant Social Paradigm" (DSP, in English), in which environmentalism portrays a challenge to DSP in industrialized countries. According to Oliveira (2008), in the early 1970s, there was a lot of research in the field of social sciences about environmental problems, motivated by collective academic action and by social movements that occurred in the USA and Europe. These actions became a milestone in the emergence of environmental movements and environmental sociology. A major issue surrounding the constitution of Environmental Sociology is the mutual relationship of humankind and nature impacts. There is a reciprocal action between man and the environment (FREUDENBURG and GRAMILING, 1989). Schmidt (1999), in an approach to the thinking of Giddens (2009), inserts the environmental crisis as an incentive for social movements. For Schmidt (1999), social movements are linked to individual life decisions, impacting collective spheres. It can be said that there is a relationship between the "new social movements" (GOHN, 1997) with Environmental Sociology because it emphasizes the responsibility of humanity regarding the changes and impacts of its actions on the environment. Indeed, society's awareness of the issue is growing. An increasingly interconnected world facilitates social movements to spread their ideas quickly, in this perfect environment for sharing opinions (CASTELLS, 2017). According to the author, the use of the internet becomes a tool to bring individuals and their ideas closer together, contributing to the interaction of social movements and their target audience. In this sense, this study highlights the form of discourse that triggered social movements, mobilization centered on individual engagement in collective actions, through social networks.

METHODOLOGY

The methodological bias of this study is based on the qualitative content analysis method. This content analysis can be defined as "a set of methodological instruments, in constant improvement, which lends itself to analyze different sources of content (verbal or non-verbal)" (SILVA and FOSSÁ, 2015, p. 3). Glazier and Powell (2011) advise that qualitative data consist of analyzing the phenomena in detail, in order to explain them, behaviors, reports of experiences, records, correspondence, interviews and speeches. Bardin (1977, p.42) defines content analysis as a methodological tool and stresses the relevance of describing the content of messages:

> [...] a set of communication analysis techniques aiming to obtain, by systematic and objective procedures for describing the content of messages, indicators (quantitative or not) that allow the inference of knowledge related to the production / reception conditions (inferred variables) of these messages.

In this sense, we started with a transcription of the speech for a better analysis of the content under the linguistic-discursive orientation to analyze the power relations in Greta Thunberg's discourse in favor of the necessary actions to solve the planet's climate crisis. The analysis of the oral speech was chosen to observe the elements of the discourse. For this, we used the transcription system proposed by Preti (1999), in the field of Conversation Analysis, as shown in the table below:

Table 1. Rules for transcription occurrences

Occurrences	Signals
Misunderstanding of words or segments	**( )**
Hypothesis of what was heard	**(hypothesis)**
Truncation (if there is homography, an accent is used, (an accent is used for the tonic and / or timbre	/
Emphatic intonation	**Capital letter**
(s, r)Vowel extension and consonant	: may increase to :::: or more
Syllabication	**-**
Interrogation	**?**
Any break	**...**
Transcriptive descriptive comments	**((lower case))**
Comments that break the thematic sequence of the exhibition; thematic diversion	**----**
Superposition, simultaneity of voices	Connecting the lines
Indication that the speech was taken or interrupted at a certain point. Not at the beginning, for example	**(...)**
.Literal quotes or readings of texts while recording	**" "**

Source: Preti, 1999, p.19

Parts of speeches from the environmental activist on climate change were selected from YouTube for further analysis. The search key was [Greta Thunberg's speech] associated with climate change. The search results found and considered were from lectures by the activist at

TEDX and at international climate conferences so that the analysis of these discourse could be carried out.

DISCOURSE AND POWER: A LINGUISTIC-DISCURSIVE ANALYSIS OF POWER RELATIONS IN GRETA THUNBERG'S SPEECH

It is necessary, first of all, to recognize the strength of a discourse and the extent to which words can be empowered to the point of leading different people to reflection. At a UN conference at Rio-92 in 1992, during the UN summit on sustainable development, held in the state of Rio de Janeiro, a Canadian child aged 12 at the time, for a few minutes, spoke in defense of the planet , as well as climate activist Greta Thunberg, aged 15, in 2018, when she made her first appearances at climate conferences in relation to climate change, alerting everyone about climate emergencies and the disastrous future impacts to the environment and future generations. Certainly, the young woman at that time (1992) did not have the social networking tools Greta Thunberg has in her favor today. However, this fact does not cancel out the strength of both speeches made in favor of the environment made by the two young environmental activists. Arousing attention is not scientific, because in fact they are not. These are speeches by very young people who are already concerned with the future of the planet and publicly place themselves in a world without immediate responses to the climatic condition. What makes these speeches the target of the media and the criticism of experts is the irreverent and audacious way of imposing a voice on the authorities and attracting supporters of their own ideas, bringing together large numbers of people. Foucault (2006) say that the discourse is in the order of the laws and if there is any power, it comes from the subject. In a society in which almost "[...] one does not have the right to say everything, one cannot talk about everything under any circumstances" (FOUCAULT, 2006, p.9), there is a relationship of power and discourse. The latter is not simply what can be translated from struggles or systems of domination, but what is being fought for. According to the author, it is nothing more than the reverberation of a truth, a game, a social practice with social roles. Discourse can be used as forms of ideological disputes and power relations. Bourdieu (1996) points out that power is not inserted in words, but in the legitimacy that is conferred on them by those who are speaking and those who listen. This power is linked to the speaker's authority image. What occurs in Greta Thunberg's discourse is not the legitimacy of his image, but the deconstruction of what he imagines as authority, as a kind of subversion. The "power" of his discourse centers on one of the environmentalist principles that sustainable practices are aimed at future generations and what attracts attention and attracts supporters is the claim of the "future generation" itself to those who have full power.

In her discourse at the Climate Summit in 2019, the activist stated:

Ln	Speaker (Greta Thunberg)	Speechs
01	GT	This is WRONG...
02	GT	I shouldn't BE here ...
03	GT	I should be AT SCHOOL, across the OCEAN.
04	GT	However, do you come to YOUNG PEOPLE looking for HOPE?
05	GT	How do they dare?

Fonte: disponível em: https://www.youtube.com/watch?v=vzI2S5kb8VY.

In this excerpt, a discourse of revolt can be observed, mainly due to the presence of emphatic intonations throughout the speeches. When starting by saying "This is wrong" that "I shouldn't be here", on lines 01 and 02, the activist plays with the argument that her attitude is a subversion, as it is not normally the role of a child speak in public in this way, l*et al*one complain about issues that should be the authorities' concerns. Furthermore, as Amossy (2005) states, the image of the self in the discourse is manifested in the interactional perspective. It is built on and by discourse and has some influence on the other. In this sense, Greta Thunberg builds an image of a child that is outside of his social role as a child, that is, this subject in the world who sees himself "obliged" to be there claiming that no one really acts.

> By subject in the world´ we understand the person of the speaker with his function (place) and the role (s) that assume, with his own ends, his cultural pre-constructions and representations of the enunciation situation. of the discourse object, its auditorium and the psychosocial representations of itself (AMOSSY, 2005, p.107)

In stating that she should be at school and not at a conference like that, Greta Thunberg uses a consensus argument that at her age the main concern is the school, positioning itself as a "victim" of a political conspiracy that does nothing for the benefit of mitigation and adaptation to climate change that have jeopardized the future generation. Furthermore, she highlights the motivation that makes her act as an activist, claiming that the young people who follow her are looking for the hope of having a better climate in the future, when compared to the current expectation. In an impetuous stance, line 05: "How dare you?", The activist addresses the world authorities through a speech using a "power" to represent the image of young people, as the future of humanity. It uses a certain harshness, highlighted by strong intonation, to reinforce the thought of revolt and discontent with the climatic situation, especially the lack of solutions on the part of the authorities. By having the moment of voice, in that circumstance of speech, there is a position of "authority". In this respect, it is worth noting that there is in fact a game of power relations from the speaker to the auditorium due to the very position it occupies in front of the public and what draws the attention of the media is not the activist's speech of revolt itself, but the young woman's audacious attitude towards world authorities. In this case, it uses a "power" to organize movements in favor of a cause, directed to the "power" of the competent authorities, to demand effective changes. There is also a guilt relationship involved, as it is notorious how the activist accuses the authorities of urgent actions to resolve the problem of climate change.

Table 2. Speech by Greta Thunberg at the Climate Action Summit 2019

Ln	Speaker (Greta Thunberg)	Speechs
01	GT	How do you dare? ...) ((sighs of tiredness))
02	GT	You STOLE my DREAMS and my childhood with your empty words ...
03	GT	However ... I'm lucky
04	GT	People are SUFFERING ... People are DYING ... ((sighs))
05	GT	WHOLE ecosystems are going into COLLAPSE
06	GT	We are at the BEGINNING of a MASS EXTINCTION… ((sighs / revolt))
07	GT	And all you can talk about is MONEY and FAIRY TALES ...
08	GT	Eternal economic growth ... (?)
09	GT	How DARE? ((sighs of revolt))

Source: available in: https://www.youtube.com/watch?v=vzI2S5kb8VY.

In this sentence, it is observed that the terms "steal" and "dare", in lines 01, 02 and 09, respectively, portray a tone of harsh and accusatory speech addressed to the authorities. The stealing of dreams and childhood on line 02 refer to the fact that there is no hope for the climate future for the next generation, in the words of the activist, and also to the fact of "losing" childhood time, which should be used with concerns about his age, to be there at a conference to demand changes.In line 03, make the image of yourself explicit, considering yourself as lucky. However, it does not complement the idea that justifies the statement, implying the idea that it is lucky perhaps because it does not fit the list of people who are dying and suffering, as it claims in line 04, perhaps because it does not allow itself to be carried away in empty words, as mentioned in line 02. In the studies by Zulianello and Ceccobelli (2020, p.4), the same perception of the authors regarding the activist's argumentative form can be observed:

> Greta Thunberg first blames the political elite, using an emphatically emotional tone and terms in the gerund like 'you are failing', 'you are killing'; the use of the gerund suggests that, in her view, politics has always done the same things. The pronoun 'you' is used by Thunberg to capture attention and increase the emotional burden of her message (ZULIANELLO and CECCOBELLI, 2020, p.4)

For Bourdieu (1996, 2004), language exercises power over the world in order to transform and modify society. In this regard, what stands out in this study is both the Foucaultian view of the subject's role and the content of the discourse in the sense of imposing how it is directed, from a given view, to the world. Foucault (2006) is attentive to the power of political discourses that, when words of force are introduced, can influence the public. This in turn, identified with them, ends up giving strength to the discourse. For him, there is no power relationship without the constitution of knowledge. Still under the analysis of Foucault's (1999) ideas of power, there is a triangular power-right-truth structure at the vertices, so that he demonstrated power as a right, being the way society behaves, making an analogy with the structure medieval social media of the king and his subjects, and also discusses power as truth, sometimes with prefabricated speeches, sometimes victims of his own truth and lack of reflection.
For Foucault (1999), there are power relations, which unfold in three fields: strategic relations in terms of power relations; domination relations and government techniques. Considering all these fields as forms of relationships, in which power is subject, for the author, power is linked to force. In the view of Deleuze (1991, p. 78), force is always plural, that is, the set of forces involved. For him, "[...] all strength is already a relationship, that is, power". It is an abstract conception, but in relationships it is possible to observe where the force is established. The directly proportional condition of more strength, more power, is perfectly verifiable.

Foucault (1999) states that in cases of repression, there is a purely legal concept. The power to a law is identified and the relation to the prohibition is strengthened. However, he emphasizes that in this case, what makes power remain accepted, that is, recognized by people, is not simply the fact of saying no to circumstances, "[...] but that in fact it permeates, produces things , induces pleasure, forms knowledge, produces discourse "(FOUCAULT, 1999, p.8). Foucault (1999) still recalls that the discourse of the masses is not sustained at the same level as the discourse of intellectuals, although the masses are independent of intellectuals to know. However, there is a system of power that invalidates this type of discourse, as there is a force of knowledge, truth and conscience. In principle, the persuasive power of activist Greta Thunberg's speeches brings this relationship of strength from the idea of unity and cooperativism, by the awareness that everyone is responsible for building the future of the world and understanding the urgency to act now to ensure a tomorrow, leading to an awareness of what everyone can do, of what is within their reach, for the same cause.Although the condition of student and child already puts her in a position of less strength, in terms of power, once considering her popular, non-scientific discourse, it is observed that the strength that sustains the activist's discourse centers on image of lesser strength, in terms of power relations, in reaching the masses by trying to raise awareness that the future of the planet must be safeguarded for future generations. In the field of argumentation, Perelman (1987, 2005) supports the idea that argumentation consists of a process of exposing justifications about a certain point of view with the intention of defending it. In a modern theory of argumentation, a new rhetoric is understood. The argument in the current mold is essentially communication, dialogue, discussion (PERELMAN, 1987, p. 234). As every argument is intended to meet the audience's adherence, the activist's discourse defends an opinion that defends the environment. For the author, the audience is the one who wants to influence the argument. In this context, discourse and speaker are inseparable terms in the argumentative process. Often, one is taken in place of the other in terms of representation. It also supports the idea that the speaker, when arguing, should take into account the interaction when choosing the arguments and be supported by their strength, that is, using one or the other according to the context. After all, an argument can have a certain influence at one time and none at another. The strength of an argument depends on the audience's acceptance, whether it accepts and shares the same beliefs as the speaker. In this respect, it can be said that the activist's speech has more power among the young audience / people, for sharing the same ideas that the authorities should leave a better environment for future generations. It is in this sense, therefore, that the strength of the argument is sustained."To argue, it is necessary to have appreciation for the interlocutor's adhesion, for his consent, for his mental participation" (PERELMAN; OLBRECHTS-TYTECA, 2005, p. 18). In this regard, the climate strike promoted by the activist consists of a movement centered on an argumentative process. After all, all those involved share, by consent, the same ideas, beliefs and truths about the need to act in the present time in order to mitigate future climate changes and emergency measures. Also as a form of "power", the discourse exerts an action on reality, in the sense of often questioning it and criticizing power relations. In fact, the activist's argument is based on these principles of attempting to persuade the young public, above all, for social transformations and changes with regard to power relations, under the sieve that climate change must be a social concern for the that is, for the demand for measures that somehow protect the quality of environmental conditions for future generations.Considering the key principles of the 1972 Stockholm Declaration, it is observed that the activist's argument focuses on prioritizing emergencies over climate change in order to ensure natural resources and the quality of the environment for future generations:

> Principle 2 - Earth's natural resources, including air, water, soil, flora and fauna and, especially, representative portions of natural ecosystems, must be preserved for the benefit of current and future generations, through careful planning or proper administration. Principle 5 - Earth's non-renewable resources should be used in order to avoid the danger of their future depletion and to ensure that all humanity participates in the benefits of such use (DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT -1972)

Greta Thunberg delivered an appealing discourse aimed at changing paradigms in order to raise people's awareness in order to act in favor of the climate. He explains, with a personal statement, why he acts in favor of the climate and argues that nothing has been done to change reality. On lines 01 and 02, Greta Thunberg reports that some people say that she should go back to school and study to resolve the climate crisis. With a look of astonishment and scorn, she assumes that this is not her role because she believes that humanity already has all the necessary tools to solve the climate problem. In this regard, his speech reveals the belief that studying for this purpose would be of no use if nothing is done today, with the tools and knowledge that one has about the means of mitigating or stopping a climate crisis. In line 05, she clearly sets out the purpose of her speech: awareness of change and action "All we have to do is act and change…" and reinforces the idea that this is everyone's duty and not just hers, as a citizen. He argues that it is not the fact that he seeks to become a climate scientist that will lead the crisis to be resolved or that it is up to her to act in this direction.In line 06 in: "Why should I study for a future that will soon be gone… (?)", One can observe a pessimistic discourse by saying that the future will be extinguished soon. On the other hand, it reveals an implicit criticism that, as humankind has been destroying the planet with carbon emissions, causing climate change, there will soon be no future. So, it reflects a criticism more of the policy of non-change, of stagnation than the question of personal professional choices. In argumentative terms, it is about the construction of arguments by analogy and inquiry. Lines 08 and 09 confirm this criticism about society, which, according to the activist, does not value Science. In the same discourse, at another time, Greta Thunberg also criticizes the scientific community itself, questioning the power relations of knowledge and effective actions, claiming that although scientists study climate factors and solutions to climate change, they cannot abandon old habits to save the planet. The same is true of politicians.

Table 3. Discourse by Greta Thunberg at TEDX Stockholm - School strike for climate - save the world by changing the rules

Ln	Speak (Greta Thunberg)	Speechs
01	GT	Some people say that I should go back to school ... ((looking scared))
02	GT	Some people say that I should study to become a climate scientist so that I can "solve the climate crisis" ... ((look and sneer)
03	GT	But the climate crisis has already been resolved ...
04	GT	We already have all the facts and solutions ....
05	GT	All we have to do is act and change ...
06	GT	Why should I study for a future that will soon be gone… (?)
07	GT	When no one is doing anything to save that future?
08	GT	And what is the logic of learning facts in the school system?
09	GT	When the most important facts provided by the best science in that same school system clearly mean nothing to our politicians and our society?

Source: Available in https://www.youtube.com/watch?v=EAmmUIEsN9A

Table 4. Discourse by Greta Thunberg at TEDX Stockholm - School strike for climate - save the world by changing the rules

Ln	Speaker (Greta Thunberg)	Speechs
01	GT	If there really was a crisis and if that crisis was caused by OUR emissions ... at least we would see some signs ...
02	GT	We would see some restrictions ...
03	GT	But not...
04	GT	AND NO ONE talks about it ...
05	GT	There are no emergency resources ....
06	GT	No headlines, no breaking news ...
07	GT	NOBODY is acting as if we are in a crisis.
08	GT	Even most climate scientists or environmental politicians continue to travel by plane, eating meat and dairy products ...

Source: Available in: https://www.youtube.com/watch?v=EAmmUIEsN9A

In line 01, there is a certain irony through the conditional lexical choices as in: "if there really was a crisis [...]" and "if this crisis was caused by our emissions [...]", ironing the fact that people are ignoring the crisis, as well as the responsibility for carbon emissions, as if there was no such responsibility on the part of people.In line 02 and 03, shetalks about the fact that there are no restrictions that prevent the climate crisis. Lines 04 to 07 reinforce the criticism of lack of actions in terms of resources and lack of discussions on the subject by the media itself. On line 08, she explicitly criticizes the scientist and politicians regarding air travel for the carbon emissions of this means of transport, as well as the act of eating meat and dairy products. In this regard, she talks in favor of social change, in the sense of changing some habits for humanity to try to reduce C02 emissions.The activist's discourse is roughly similar to that of environmental sociologists, albeit in consultation with scientific reports made available online to the public, in the sense that social changes need to be a reality. Implicitly, he criticizes the attitude of scientists, as he hoped that, once they studied climate issues, they would change these habits. Zulianello and Ceccobelli (2020, p.4) believe, however, that Greta Thunberg's message is not against the scientific voice itself. This can be verified by looking at line 09 of table 3, in: "When the most important facts provided by the best science of that same school system clearly mean nothing to our politicians and our society?"

> Most notably, Greta Thunberg's message is based on the idea that vox scientifica is superior and must prevail over vox populi. In other words, while presenting a clear anti-elitism, his message is at odds with the populist view of the world because all solutions and answers can be found by listening to experts and not people (ZULIANELLO and CECCOBELLI, 2020, p.4)

As a complement to Foucault's (1996) postulations, regarding power relations, Newell (2008) showed that although the "Non-Governmental Organizations (NGOs)" related to the United Nations are limited to large corporations and traditional interest groups, admitted there are other non-state actors that can influence the process of climate change and that, even, will continue to pressure governments towards more just and creative solutions to climate change (PULVER, 2004; ROBERTS and PARKS, 2007). Now taking into account one of the excerpts from one of the speeches given by Greta in front of the Swedish Parliament published by the IHU Magazine on February 22, 2019, (...) "Some say that we are the hope. That we will save the world. But it is not true, we will not do it. There is no time to wait for us to grow. We need to act now in the face of the climate crisis ", shows an urgency for the climate that has also been demonstrated and published through scientific data by the renowned economist Nicholas Stern, in 2006, through the Stern Review.Nicholas Stern, together with Greta and the ecological journalist Nicolas Hulot, received the honorary cause doctorate in 2019-2020 from Mons-Hainaut University and the Mons Polytechnic College (UMons), in France, for being considered the three personalities who most contributed to raising awareness about sustainable development (LeSoir.be online journal of October 10, 2019). The Stern Review (2006)[1], proposes in its report the major issue of mitigating already to reduce the future costs of adaptation and the costs of a more severe climate. There is a lot of evidence surrounding the economic impacts of climate change and the costs and benefits of action to reduce CO2 emissions.Concisely, in relation to the report prepared by Stern, mitigation must be understood as an investment, a cost borne in the present and for the following decades, in order to avoid risks that can become much more drastic in the future. Based on the results of economic models, it is estimated that nothing has been done. Global costs and climate change risks will be equivalent to the loss of at least 5% to 20% of global GDP per year starting today and indefinitely. On the contrary, if something is done today, it is possible to reduce CO2 emissions in order to avoid the impacts of climate change. The loss of world GDP could be less, around 1% a.a. from 2050. There is also a parallel between the activist's speech and the speeches of figures who have been influencing society both in the scientific field, by the economist Nicholas Stern, and the contemporary religious influencer, the Holy Father Francisco, better known as Pope Francis. About the latter, in a passage from the Encyclical Letter Laudato Si (2016), under the theme "Integral Ecology" of his own authorship, it is possible to observe a certain similarity of thought of these three emblematic figures. "[...] We believers cannot help but pray to God for positive developments in current debates, so that future generations do not suffer the consequences of reckless delays". What we see in this passage is the sense of urgency to invest today and not tomorrow in order to reduce the future impacts of climate change. On the other hand, there is a distinction of thoughts between Pope Francis and the Stern Review. While, in a passage from the Papal Encyclical Letter (p.63, 2016), the Pope mentions in an excerpt "[...] In this context [real economy], it must always be remembered that environmental protection cannot be guaranteed only on the basis of financial

[1]Stern Review 2006 a dense report, very well prepared by economist Nicholas Stern based on very strong theories, released by the British government where he gives a speech on the effect of global warming on the world economy. Stern (2006)

calculation of costs and benefits", in the Stern Review (2006), evidence is observed regarding the economic impacts of climate change and the costs and benefits of action to reduce greenhouse gas (GHG) emissions are investigated.

RESULTS AND DISCUSSIONS

Through the analyzes, it was possible to verify what is at stake: a climate crisis with few emergency policies. The power relations involved, on the one hand, the activist's speech that attracts supporters and causes cause movements among young people with a climate strike and awareness speeches at environmental events, on the other, authorities and the scientific community that deal with climate issues more with concerns of technological order with guidelines for possible discussions.In this context, the power of the speech of activist Greta Thunberg, according to Foucault (1999), can be seen as the one who intends to establish discussions of truth that produces certain effects of power. Subversion built by the image of a girl in speeches of awareness, protest and revolt. The activist gained notoriety for her courage, perseverance, persuasion and for believing that an individual is capable of moving crowds. And she proved that this is possible, bringing the "truth" in her words, transmitting her concern for the environment and getting this "truth" to be replicated to each individual, believing that the individual power is in an action on actions, that is, the individual is capable of generating collective intentionality. It is worth remembering that Greta Thunberg's popularity is due to the media coverage, which gave her a voice. According to Zulianello and Ceccobelli (2020, p.1), "the growth in popularity of Greta Thunberg coincided with the growth in media coverage and she quickly achieved the status of a media celebrity". Foucault (1999) characterizes power relations as a model of power, law and truth. In this regard, the author supports the idea that there is power as a right due to the ways in which society employs relations of order, rules and subjects that follow and obey these rules.In other words, when there are laws that operate and people to whom those laws are submitted. According to the author, there is another form of power that consists of a power as truth, which is instituted by speeches. From this perspective, the content analysis of Greta Thunberg's speeches indicates this movement and directionality for the activist's speeches.In other words, when there are laws that operate and people to whom those laws are submitted. According to the author, there is another form of power that consists of a power as truth, which is instituted by speeches. From this perspective, the content analysis of Greta Thunberg's speeches indicates this movement and directionality for the activist's speeches.

Furthermore, the emphatic form in the discourse together with the construction of an image of contestation to the authorities about the reduction of carbon emissions, as well as the image of a child questioning the future of the planet and the symbol that the symbolic character that a child brings to the world in terms of hope, they contribute to the production of a discourse on power relations.After all, in a world where hope is sustained by the actions of those who judge it as a reason for actions, Greta's speech follows this principle in reverse order. What she questions is that there is no hope in the face of the actions of the authorities and the society that does not act on behalf of the planet. Greta Thunberg blames the political elite by using argumentative resources to attract audience support. The student initiative, instituted by Greta Thunberg, which became known worldwide under the name "Fridays for Future [2]", was one of the examples of mass movement, which led a group of Norwegian deputies to nominate the young activist for the Nobel Prize in Peace, because it understands that the climate threat is one of the main reasons for conflicts and wars. (IHU Online Magazine, March 15, 2019). Based on what was presented, in the light of the research carried out, there are indications that actions such as these by the climate activist may demonstrate the power of discourse through Foucault's (1999) thoughts regarding power as an action on actions. Paralleling the speeches made by Greta Thunberg and the thoughts of Nicholas Stern, through the Stern Report, it was possible to see the similarity in the face of the urgent thought of both in relation to climate change. It was possible to verify this similarity from many speeches that the activist has already made at a climate conference, as some excerpts mentioned in this study with the idea of the Stern Report. Stern (2006) was quite emphatic on the issues defended in his report just as Greta has been, but in arguably different ways. For Stern (2006), mitigation is an investment, a cost supported in the now, but continuing for the next decades, in order to avoid the most harmful future risks. In any case, the brevity of making the right decisions can result in effective and less costly actions.Also according to the Stern report (2006), future generations will be even more affected by climate change than populations in the present, and the author understands as Greta Thunberg also believes, that the same well-being and the same attention should be given for future generations, in which the climate activist is included, in defense not only of her own generation but of the others to come.

It is important to make a parenthesis in relation to the 2006 Stern Report. Ten years after the 2006 Stern Review was released, in an interview with The Guardian, in October 2016, the economist Stern made relevant observations in terms of what he himself had estimated and the path that was taken after these ten years of his epic report.In this interview, Stern found that the world is in a different reality. However, it is still far from reaching the goals set out in the Paris Agreement. Stern said the only option for future global economic growth would be through sustainable low-carbon development, noting that the costs of inaction against global warming were higher than he had suggested. However, the costs of the action are being lower than he had estimated, largely due to the evolution of technological progress in renewable energies, for example, solar energy, which has been reducing its costs in an accelerated way. As for the position of Environmental Sociology and the engagement of the "new social movements", it was observed that there are proximity to the speeches of the activist Greta Thunberg, regarding the awareness of the masses. In addition, it was possible to identify that the activist's biggest criticism is in relation to carbon reduction emergencies, which requires not only governmental attitude but also social changes.According to Okereke and Coventry (2016), the theory around climate change has existed since the end of the 19th century, but the scientific understanding of the meaning of the issue only became political after 1980, when the data became more accurate and the modeling gave more clarity to the results on greenhouse gas emissions being identified so that the extent of the problem could no longer be avoided.

Climate change can disrupt land-water connections, altering biogeochemical, hydrological cycles and diverse biosphere-atmosphere interactions. Consequently, aquatic and terrestrial ecosystems are modified, compromising the capacity of these systems to provide essential services for life (HÄDER; BARNERS, 2019).Climate change is also a major adverse effect that directly affects human health, especially in populated vulnerable areas. The impact of climate change with changes in temperature, precipitation and humidity, extreme weather events, such as floods and droughts, has increased human diseases, such as the incidence of dysentery. According to data from the World Health Organization (WHO, 2016), about 23% of the total deaths worldwide in 2012 were attributed to climate change (WU *et al*., 2020). Eutrophication is also affected by climate change, as the excessive growth of aquatic plants and organic matter can interact with micro plastic pollution and the resuspension of sediments in shallow lakes, thus intensely affecting the quality of the environment for aquatic organisms (variation in water temperature and salinity, increase in the duration and frequency of hypoxia events, water acidification) or even for human health, through the ingestion of contaminated water (SERVILI *et al*., 2020; ZHANG *et al*., 2020; BARRETO *et al*., 2013). This study tried to highlight Environmental Sociology on the issue of environmental problems surrounding the new man-nature relationship to explain the causes of environmental degradation that resulted in social mobilizations to environmental causes through social networks across the globe.Environmental Sociology focuses on the interaction of the physical environment with human societies and social changes, although there are other reflections in the field of sociology on the environmental issue. (Dunlap, 2015). In this sense, it was found in this research the link

between Environmental Sociology and individual and collective engagements, in environmental mobilizations through internet networks, very influenced by the new social dynamics, arising in a different way from traditional manifestations.

FINAL CONSIDERATIONS

Based on the hypothesis that Greta Thunberg's speech focuses on an approach to environmental sociology, in which there are evident similarities in the mobilization of the masses through awareness of social changes, it can be concluded that it is a persuasive and guided by the principles of sustainability, preservation and conservation of natural resources, from which it is necessary to safeguard adequate conditions for future generations. From the parallel in a borderline way of the speeches of Greta Thunberg with a small part of an extensive material of the 2006 Stern Review, elaborated by the economist Nicholas Stern, regarding the urgency thought of both in relation to climate change it was possible to observe that the discussions about social movements guide the need for a paradigm and lifestyle change. However, the role of technology in this process should not be exhausted.After all, it also brings important resources to solve not only the effects of climate change,but also solutions to minimize carbon emissions. In this regard, it is believed that it is necessary to reconcile what Environmental Sociology considers in terms of changes in lifestyle and responsible posture on climate change on the planet with what technology favors studies on climate. Any position at the expense of another would be biased. It is concluded that the decision to mitigate or not will lead to variations in the capital rate, since climate change will alter the conditions of capital's wealth and profitability in the future. The fight against climate change should not be interpreted as a barrier to economic growth, but as a way of ensuring sustainable development and the well-being of world society. According to the Stern report (2006), future generations will be even more affected by climate change than populations today. According to Gohn (2017), the new stage of social struggles is made by combining technological innovations and a return to the theories of the 19th century, completely revised. It is about recognizing the diversity of collective civil movements, their articulations and the interpretative frameworks attributed to them senses and meanings". In fact, traditional environmental movements are changing. However, they do not lose their ideological characteristics. However, they adhere to a new reality, adapting to a contemporary social dynamic, using technological tools as allies, as a means of expanding and strengthening their ideas and actions.

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