"Youth for future":

Qualitative survey of Italian youth and the environment. Tools for an ecopedagogy

«Joventut per al futur»: estudi qualitatiu de la joventut italiana i del medi ambient. Eines per a una ecopedagogia

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Abstract

In 2020, the Salesian University Institute of Venice conducted the mixed-methods "Youth for future" survey of two samples of young Italians: 1,821 aged 14/18, 1,523 aged 19/29. The survey asked about the relationship between young people, the environmental issue and the future. The research was designed to conduct the study with different instruments and to capture findings from quantitative and qualitative perspectives, which are often competing rather than concurring.

Beyond the comparison with colleagues, we were exclusively concerned with the qualitative research and this part is discussed in the article. Given the large number of participants, this section was based on a single question: a request to the youth to talk about their suggestions on the human/environment relationship.

As our background is semiotic/pedagogical, the purpose of our research was to understand the sentiment within youth languages with respect to the environment and the ways in which meaning is constructed, beyond the stereotypes and interpretive deceptions of language, and to hypothesize formative elements and opportunities in order to approximate the state of things by intercepting

the extensive dis/information of the infosphere, highlighting the elements that convey the representations through which we construct and map our image of the world. This topic is unavoidable for education at this time.

Keywords

Transdisciplinarity, youth and environment, infosphere, knowledge gap, language analysis.

Resum

El 2020, l'Institut Universitari Salesià de Venècia va efectuar l'enquesta amb mètodes mixtos «Joventut per al Futur» a dues mostres de joves italians: 1.821 d'edat entre 14 i 18 anys, i 1.523 d'entre 19 i 29. L'enquesta preguntava sobre la relació entre la qüestió ambiental en els joves i el futur. La recerca es va dissenyar per dur a terme l'estudi amb diferents instruments i assolir troballes des de perspectives quantitatives i qualitatives, que sovint competeixen en lloc de concórrer.

Més enllà de la comparació amb els companys, ens preocupava sobretot la recerca qualitativa i aquesta és la part que es discuteix en l'article. Atès el gran nombre de participants, aquesta secció es va basar en una sola pregunta: una sol·licitud als joves perquè parlessin dels seus suggeriments sobre la relació humà / medi ambient.

Com que el nostre bagatge és semiòtic i pedagògic, el propòsit de la nostra recerca era comprendre el sentiment respecte a l'entorn i les formes en què es construeix el significat dins de les llengües juvenils, més enllà dels estereotips i els enganys interpretatius del llenguatge. També proposar elements i oportunitats formatives per aproximar-nos a «l'estat de les coses» interceptant l'extensa (des)informació de la infoesfera, destacant els elements que transmeten les representacions a través de les quals construïm i mapem la nostra imatge del món. És un tema actualment ineludible per a l'educació.

Paraules clau

Transdisciplinarietat, joventut i medi ambient, infoesfera, bretxa de coneixement, anàlisi lingüística.

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1. Introduction

What is the relationship between young Italians, the environmental issue and the vision of the future? Our era is characterized by a new form of immersive informal education, that of the infosphere (Floridi, 2020), which is powerful, penetrating and easily enjoyed through constantly available devices such as smartphones. On the other hand, canonical school education is officially in place in a formal education that is depowered and in some situations residual, as is increasingly attested in a disciplinary sense, pandering to the specialization of the world (of work) and often unable to take charge of the present-day educational problems. In this situation, it appeared important to intercept the extensive overall information/disinformation/training put in place by the latter and especially by old and new media, in the various new vertical and horizontal forms of communication, which are often elusive, in the web, the deep web, AI, etc. We had the twofold aim of experimenting with new tools of inquiry and analysis, seeking to highlight the work of new social representations that help to form our maps of the world, our hierarchies of values and, consequently, our behaviors and lifestyles.

Based on these research questions and motivations, in 2020 the lusve University Institute of Venice promoted a nationwide "Youth for future" research on young Italians, differentiated by age, gender and type of engagement but all nonetheless subject, on the one hand, to schooling heritage and, on the other, to the massive and inescapable influence of the infosphere.

The research was conducted by a team of four researchers and was designed to apply methodological tools from different disciplinary fields: sociology, psychology, pedagogy and semiotics. The semiotic/pedagogically trained writer was independently responsible for the qualitative research, which is briefly presented in this article. The purpose outlined during the preparation of the survey was to probe, in various ideological and behavioral aspects, young people's view of the environment, the nature/culture relationship and their future-oriented identity in order to identify what relationship young people ultimately have with "themselves" (as human beings) and the environment (an ambiguous term, basically meaning 'nature'). The study involved the examination of knowledge, interests, skills, active or passive attitudes, indifference, and even whether, for example, according to Heidegger's visionary, suggestive and dramatic idea, which is relevant today, a relationship is established with an environment that no longer has the sense of nature but rather of technology (Heidegger, 2017/1953). Moreover, the study emphasized the importance and attention that needs to be given to the modes of expression, which are highly articulated and potentially misleading on a superficial reading, as they are used by young people.

The qualitative part, given the very high number of respondents, was based on a single question, unlike the classic semi-structured use of the more interactive interview. It was a request to young people to express their knowledge and proposals on the topic of the relationship between humanity and the environment (that is to say, what they considered the environment to be), whether action was needed to change anything and by whom, and if so, how. Ample room was left for reflections on the subject, thanks to the one written open-ended question.

The dual qualitative and quantitative, mixed-methods aspect of the research was intended to be a way to compare in retrospect the respective results from the analyses conducted with their own specific procedures.¹

An important aspect of the research and, specifically, of the research of qualitative character, was to experiment with a method that would make it possible to understand the expressions of youth languages in the communicative rushes, streams of consciousness, provocations, slangs and language games - in short, in the differentiated neo-languages of the subgroups, fielded in the overall corpus of responses. These elements would make it possible to identify, in the intersection of form and substance, the feeling with respect to the environmental issue, the visions, the sedimented representations and the matrices of origin of the proposed arguments. This theme was foundational to the research from the pedagogical point of view, as regards the formative dimension, which was one of the primary focuses of the study. Indeed, pedagogy suggests there is an increasing need to intercept the attention and interaction of students in teaching activities, in an effective, productive and generative way, and to implement listening and response by teachers, themselves subjected, but with supposedly greater filters, to the infosphere. It is also necessary to prevent them from considering young students as Martians or bionics in the classroom just because they themselves are incapable of intercepting the right empathic dimension in a technological world. This is a dimension that cannot disregard the knowledge of young people's codes and languages, which are often anything but poor and basic, as stereotypes about youth often recite. That is why it was necessary to investigate the ways in which the meaning manifested by the corpus of responses is constructed, accompanied by a socio-semiotic and social psychology evaluation of the stereotypes and interpretative deceptions inherent in the communicative paths operated by and with the language used. To this end, a procedure of sense-generation analysis, specifically semiotics or narratology (Greimas and Courtés, 1979), was chosen that would allow the necessary caution so that not even researchers would fall into the homogenizing simplification, as mentioned, of highly differentiated, creative, playful and often provocative languages.

It should also be pointed out that this research, in its analytical stage, is in an experimental state. An attempt was made to identify in the semiotic "toolbox", which is extremely rich and complex, the tools that would allow a sufficiently in-depth procedure of analysis with a simple structure, it being evident that a canonical use of the available tools would have meant the impossibility of operating.² Indeed, it is a question of obtaining answers but also of verifying, as always, the usability and tightness of the instrumentation. This consideration stems from an awareness of the need to create new "tools" for the school that are up to the developments that informal education is currently introducing and that thus respond to the stresses of the new forms of communication. We sought to conduct this task with a non-classic rather transdisciplinary vision. This involves the inescapable question of the change of epistemological vision among other disciplines, including pedagogy, because of the new presence in the world outside educational institutions of a strongly seductive and formative power marked by manipulation and potentially by social engineering, already possibly under experimentation,³ a power for which school could remain one of the few antidotes.

The infosphere seems to make simplifying syntheses of scientific determinations, accompanying them with supporting slogans whose easily assimilated conceptual minimum makes them a winning weapon with respect to the idea of "piercing" the constitutive cognitive defenses of the target audience. Often the arguments are laughable because they correspond to obvious myths that are part of our most basic and boorish encyclopedia (Eco, 1984). As can be seen in the responses to our research, some of the themes addressed are retakes of the traditional discourse on the environment, as proposed in the most popular clichés, which are often patently false or fallacious. This would include, for example, the theme of "conspiracy" with its imaginary unfolding that some would hold to be absolutely true (Eco, 2015).

There is widespread adherence to the conspiracy idea of scientists claiming anthropogenic responsibility for emissions because they are bribed and paid by some fancy secret lobby, for example. It is harder to hear the opposite argument, which is much more likely, that the lobbies/conspirators are those of the oil companies,⁴ whose motive, kept under wraps, is also apparent. Probably, as the semiologist Umberto Eco states, the real conspiracies are those that are not even imagined or at any rate not discovered, while the others are fantasies due to simplifying social interpretations adduced in the face of a difficult interpretation of social complexity. This idea of the conspiracy is a functional formula for moving farther and farther away from what we have called *the state of things*. As the semiotician Gianfranco Marrone explains, a theory is needed to dismantle the lies of power, which is not in things but among things, which acts not by repressing but by producing, creeping into the folds of language, into the partitions of knowledge, into the details of a classification, and into the tacit assumptions of a rhetorical figure (Marrone, 2016 p. 1). This is a clear explanation of the disassembling function and working of semiotic analysis.

This study also notes the relevant social problem concerning the relationship between awareness and social manipulation, and the ability of populations to manifest themselves as active citizens with respect to the problems of the governance of the territory. The alternative to this remains to be to devolve this task, essential for the common good, solely to policy makers. This cognitive dimension raises the issue of the fundamental relationship between knowledge and, consequently, arrangements in what is now precisely called the knowledge society. Here we would give an explanatory example of what has been happening in connection with environmental issues in recent years. With respect to the climate crisis, if our references were, as is desirable, scientists, and with 97.3 percent of climatologists affirming the existence of anthropogenic responsibility for global warming, as noted in the literature review by Cook et al. (2003), there should be only marginal debate. The model statistically approximates the state of things in a well-argued way. But one only has to enter a bar or, unfortunately, even far more cognitively sound places, and address the question of responsibility, man or nature, to see that the percentages appear paradoxically almost reversed. What happens along the path from the scientific community to the masses and citizens or along the path from or to education? Why are we skeptical of such a clear-cut position and doubt the human contribution to the phenomenon? Here we find one of the central issues of our research: how to intercept these phenomena of resistance to knowledge when it has been ascertained, and how to draw lessons from it in favor of a new pedagogical posture that succeeds in addressing the fundamental problem of hypothesizing the way to build awareness

about the choices to be made in the specific case of the environment, although the principle applies to all civilizational choices.

The hypothesis is that, in the wake of the knowledge that can be acquired through this type of research, a new pact can be developed that is capable of going beyond the dissemination or diffusion of knowledge, both of which practices presuppose an already formed and crystallized and therefore, by definition, hierarchically superior knowledge that can hardly be thought to contribute to the opening of a dialogue, based on listening, between the various parties and knowledge.

Lastly, regarding the review of the relevant scientific literature, no studies were identified with reference to our project, that is, to the ideologically non-formalized view of environmental issues. Studies, for example, have investigated why there is engagement in environmental issues with the "Fridays for future" groups,⁵ but there is no prior recent literature on the specifics of the young Italian generation's view of the environmental issue according to our hypothesis of an investigation that considers the co-presence of formal and informal educational action to be a matrix of ideological constructions and related considerations of possible pedagogical fallout.

Certainly, Mortari's (2020) and Malavasi's (2019) contributions on ecological education and environmental pedagogy, respectively, as well as Freire's on ecopedagogy⁶ have represented, with others, a constant beacon in our navigation and setting of research and analysis, but they are now an indisputable heritage of the culture of the environmental issue that we take for granted.

2. Material and methods

The "Youth for future" research carried out at the lusve University Institute in Venice was a national mixed-methods research based on a statistical sample of young Italian students and workers constituted by selecting two groups, separated by age and according to the rules of statistical significance and sampling relevance. 1,821 interviews included high school students aged 14 to 18; the second group consisted of 1,523 young college students or workers aged 19 to 29. An intergenerational comparison was hypothesized to test the different approaches present between students placed in a more formalized and regulated educational environment, such as high school or secondary school, and young people in the university and working world who would be more subject to the informal aspects of education.

In reference to the methodology, it should be stated that it belongs to a constructivist conception, which means attributing to personal views an important part of the idea of reality that each person goes to represent, understood as the constructive fruit of each person's cognitive activity (Watzlawick, 2018). This is an important point in the analysis of texts so that one does not come to parameterize statements with an unapproachable objectivity, considering that reality "exists" but cannot give an idea of itself that is not the fruit of the "gaze". There is no realm of truth but that of vision. However, we can act on the comparison between models presupposed by the production of statements about the idea of reality. In this respect, a model of the "state of things" is necessary at the base of the analysis, which does not mean, as stated, reality, but rather an approximation of it that leaves room for other argued approximations. However, this does not mean pure subjective invention that is unmotivated with respect to it. This path can be traced back to intercept the matrices

that underlie the logic of personal mappings in order to understand where, for example – with respect to established scientific determinations – blockages, removals or skepticism up to unacceptable denials are constituted in the face of clear and established evidence that is not true but represents the closest approximation. The origin and configuration of personal representations is crucial in pedagogy to identify how students can be addressed in training by overcoming cognitive barriers that limit their development and expansion into new ideas. Here we should make a further consideration of the dimension of methodological practices. We share with Feyerabend (2013) the idea that intellectual progress is based on creativity and inventiveness, which are the result not only of method but also of the operational capacity of researchers, a capacity that absolutely must be encouraged so that it can manifest itself without restrictions.

Being aware of the representations through which citizens read the facts of reality is fundamental for science which, in the emergence of urgent issues that the environmental situation determines, is challenged by politics and entrusted with the complex role of legitimizing the choices to be made (Latouche, 2021). This is a role from which pedagogy, with its long horizons and pedagogies dealing with the environment, cannot remain excluded, entrusting the hard sciences with the primary task of collaborating on the future choices of societies. The result would be an inconsistency of the pedagogical task, which must maintain its role, in new forms, as a critical consciousness of the present and as an antidote to the numerical obsession and calculative vision reigning in technoscience, already amply described with incredible anticipation by Heidegger in 1953 (2017). The need emerges for a genuine interweaving of disciplines that intersect on the basis of research questions and not domains, an attitude that post-normal science calls transdisciplinarity⁹ (Funtowicz and Ravetz, 1997). This highlights the need for a common epistemological vision. These disciplines run parallel in providing analytical orientations, theoretical assumptions, actions and training, allowing for the reciprocal cross-fertilizations that go beyond the classic selfreferential action that often limits them, becoming deeply intertwined with the global and holistic dimension, a dimension by whose choices the environment is dominated, according to a progressive chain of interdependencies between different ecosystems and between the local and the global (Latour, 2017).

As the recent Covid-19 pandemic has shown, in the mediatization brought into play by infotainment, the difficulty of citizens to relate not only to science but especially to ways of doing research has been demonstrated. This brings back obsolete and never updated epistemological dimensions, the legacy of a school of yesteryear. In this it is aided by staged scientists oblivious both to the media game and, apparently, to the statutes of science. The need is expressed for a cohesive scientific community, speaking with one voice, but that is a totally outdated school myth.

The fundamental and imperative endeavor of science as social knowledge is precisely to foster and increase knowledge and awareness in citizens, not only for an ethical form of egalitarian equity but also in anticipation of the technological accelerations towards A.I. and robotics (Malavasi, 2019).

In the specific case of the environmental issue, ecopedagogy is entrusted with the task of broadening citizens' participation in the life of the polis and in deciding its fate. In this respect, as we will propose below, a different approach to tools to prepare for the assigned task looks necessary to us (Morin, 1999). The toolbox of the "environmental"

battle" needs to lighten up, to thin out in the continuous reiteration of past knowledge, and to address the epochal change that digitization and all its corollaries have introduced into the world that Floridi called *onlife* (Floridi, 2020), seeking to indicate the continuous intermingling between the life we used to call *real life* and online life, between the formal and the informal, between the "real" life in the field of research and the archival life in literature.

3. Results

The qualitative part of the research was structured on a single question, "In conclusion, what suggestions would you make to address the issue of the relationship between humans and the environment?" This sentence represents an important engagement for the two groups of respondents because it implies bringing into play unusual reflections for young people: it is a new existential question. For us, it is about the possible finding, in the expression of youth's thought, of visions and tendencies referring to environmental issues, in which to try to investigate through the elaborated constructions, traces of the cognitive residue of the overall representations offered by the more or less canonical formative agencies that coexist in the infosphere: family, school, reference groups (also "Fridays for future"), community, media and new media (social, app, game, blog, community, influencer). The aim of this is to redevelop our own map of the effects that various forms of communication generate and to allow hypotheses on the tools to be implemented in teaching.

The corpus was large and heterogeneous, although not all participants answered the qualitative question (766 responses from the first group out of 1,821, 42%, and 932 from the second - out of 1,523, 61%. Faced with a corpus of this size, it is necessary to hypothesize synthetic tools that allow not exhaustive analyses, which are unlikely in research practice, but the development of heuristics that intercept the indicators *-spie* in the original- (Ginzburg, 1986) significant of movements, ideas, visions present in the stories expressed from the corpus as a collective subject).

The aim is to draw one or more stronger and more definite trend lines, consisting of a significant set of similar, minor, collateral, interrupted pathways, etc. and choices. It is a matter of understanding whether or not, according to the classical stereotype, there is any uniformity of "youth" thinking, as far as possible homogenizations towards certain directions of understanding from the visible traces, the drives and influences that these possibly exert. A combination of elements that should identify, on the subject of the environment, the state of things with respect to the vision of young people, which can go from a hypothetical awareness to "distracted" adherence to greenwashing and to pure fashions, or from conformism to antagonism or to a pseudo-antagonism that actually falls within the mainstream.

Science itself is not the realm of neutrality but experiences the contradictions of the societies in which it lives. It is a theme whose awareness must be sought in the visions of young people who, with the widespread reductionist ideology, risk seeing the state of the world as the only possible, natural, unchangeable one, rather than as the result of obvious historical choices and interests that are antithetical, incompatible and, in this way, marginal, with respect to something that instead fully concerns them: their own lives (Latouche, 2021).

The analysis will then proceed along a twofold path: a semantic/pragmatic approach to identify uses and recurrences of lemmas and articulations through a series of

categories, and an approach that, in an unconventional way, uses working tools from narratology. If the first approach can facilitate contextualization and verify the presence of discursive isotopies, recurrences, elements of individuation of the topic and contextual framing, the second approach, through the identification of the collective "actantial structures" and "narrative paths" set in place, can help to reveal a structure in which to place the protagonists of that main narrative flow mentioned above. Clearly, these are propositions to be worked out for both avenues, but they can help to initiate the examination of the themes and elements brought into play by the testimonies in order to proceed to their narrativization. For us, it is crucial to operate the interconnection between theories in view of the interpretation of phenomena. For this purpose, instead of considering each response as a microtext, we consider the collective corpus as a multi-voiced choral narrative and as a text/narrative of the whole qualitative part of the research, including both the question and the sum of the responses. As mentioned, we cannot ignore the question, which stands as the active stimulus of the cognitive research required of the respondents. The question is the starting point of the overtly confrontational and potentially transformative level of the overall corpus. In this case, in an actantial structuring, the question is identified as the subject's initiator (Destinateur in original text) at the beginning of the narrative; it is then posed as the Sender (S.er) of a search for which the respondents, a collective subject, (Sn from now), is invested by the proposed cognitive search. This is the "struggle" underscored by the proposed predicate /facing/ for the "conquest" of a competence, which we might call strategic, in the face of a situation that is indicated as problematic and evidently waiting to be solved, given the definition used /question/ of the relationship between humans and the environment.

Environment, a polysemic term, could have generated misunderstandings due to contextualization in the recurring context of the questionnaire, decried in the responses as the variant /nature/.

This defines the idea of a conflict between nature and culture, whose hypothesis ("suggestions") of composition and/or solution is entrusted to Sn. A valued object thus becomes the composition of the hypothesized dissociation between man and nature, expressing at the surface level the result of a matrix of deep structures that we might imagine placed on the axis of opposites of the semiotic square as nature/culture. We can then hypothesize that in the movements around this axis - one of those that Greimas and Courtés (1979) will consider as possible universals – the play of narrativity will take place at a deep level, intertwined in the definition of paths with the other great hypothetical universal that is the axis of life/death opposites. We mean that in the narratives, the surface level embodied by the various subjects, roles and statements of modalized being and doing (e.g., doing, being, wanting to do, etc.) along their narrative paths will move into the squares, producing different valuations of the objects in play. When we find the statement that "man without consciousness will disappear from the earth", then the deep positions shift from culture to non-culture (lack of awareness) which, in the second square, is intertwined with non-life. Let me clarify, it is not we who determine the paths, it is the participants themselves who, by telling themselves, dislocate themselves along the axes of contraries (and contradictors in the non-death and non-life example) and enhance them. In an essentialist view, life and culture are values and death and nature, their respective opposites, anti-values, but in the analysis of meaning generation it is important not to

start from predetermined values but from what the texts themselves axiologize and valorize, according to the paths involved. This accounts for very different narratives that, for example on the life/death axis, are represented by the story of a mystic or a suicide.

In the response (371 C2),¹⁰ the problem is addressed by assuming the solution in the denial of the separation between nature and culture.

Human beings are a "member", they are part of the environment. Only seriously understanding this concept will help everyone to interpret their behavior well.

Humans must understand that as animals they are an active part of the ecosystem and participate in it by modifying it like all other members (animals, plants, ...).

Here is the shift effected by the narrative: the human typically connoted by culture makes a journey from /culture/ to /nature/ via /non-culture/ (the recognition of animality-the seed animality "neglected" in the semantic existence of /man/) and finds in its new location the meaning of /life/ on the other square described (life/death) where the starting point was instead placed in a /non-life/. Natural life is on a par with everything that exists. We could see in parallel the unfolding of Rousseau's *Emile* (1999) which, with respect to the human, narrates the value of the natural and the degeneration of the social. Here is a small variation on the theme. Another route is to bring out the respondents' view of the environment and the world through the analysis of the subjects hypothesized in the responses, their condition of existence and the actions attributed to them. In the first path, an attempt was made to identify the structure of the interlocution by identifying, mostly hypothetically, the main subjects that the respondents distributed in the answers mostly as implicit entities of different types but identifiable through the descriptions, which are briefly:

/state/, /businesses/, /human beings/, /gaudents/, /divulgators/, /state-educators/, pure communicative state/, /us-first world/, /we-local/, /science/, /philosophy/, /"sages" (Platonic)/, /egoists/, /"creative"/, /movements/, /more-informed-knowledgeable individuals/, /more-responsible-civilized-respectful individuals/.

And we interfaced them with explicit subjects to verify the differences:

/human beings/, /citizens/, /institutions/, /economic system/, /people/, /elderly/, /children, childhood/, /animals/, /politicians/, /land/, /school/, /states /, /science-experts/, /guests/, /privates/, /multinationals/, /propagandists/.

The subjects were identified in the actions of which they are protagonists, manifesting in this respect a contextualized and identifiable universe on the real/ideal, existent/hypothetical, active/passive, utopian/dystopian, cognitive/pragmatic axes, which are the axes put into play from the overall text.

In summary, the selection concerned the subjects who were overall included in the action "to address the issue of the relationship between human beings and the environment" proposed by the application. This overall choice highlights potential tendencies of a hypothetical narrative program implemented in this actantial structure which is represented by the choral set of micro-stories. Obviously, it identifies a series

of possible directions which, however, enhanced by the same play of the expressed definitions, account for a certain axiology and therefore a certain vision of the world.

The empirical categories used were therefore seen as possible objects of value on which the thymic categories euphoria/dysphoria, positive/negative were manifested by the authors/respondents, seen in this logic as a multiple and collective subject expressing a vision although multifaceted as a reference framework of the levels of attention and tension to the proposed problems. The aim is to try to identify an overall narrativity that explains subjects, objects and related valorizations put forward by the various actants, through explicit, implicit or paraphrased categories. The main categories highlighted were /knowledge/ with various declinations, /science and technology/, /ethical-consciousness/, /solidarity/, /economics/, /politics/, /law-rules-sanctions/, /personal visions/.

Let's try to provide examples in some categories. In /knowledge/, which indicates the ways in which knowledge is spread, we find different ideas and declinations of the theme: education, training, from "promoting the culture of respect for nature from birth" (305 C1) to "they would have more meetings in schools (starting from primary school) to raise awareness among children and adolescents" (303 C1). The first, in line with the psychoanalytic and neuroscientific determinations that limit the ability to acquire certain maps of knowledge to children aged between 3 and 6 years, enhances the choice to exercise a sort of immediate imprinting in order to obtain the results of an ecological education, while the second enhances the progressive cognitive ability that accompanies growth through the possibility of raising awareness. These are examples of how each microtext brings with it a universe of enhancements that language allows to operate.

Addressing the theme of expressive mode, it must be stated that adolescent languages (plural because they are constantly changing between one generation and another) tend to be characterized by emphasizing autonomy and diversity. It is therefore not surprising that the linguistic codes in use can be provocative, absolutist, peremptory, joking or vulgar (according to the adult vision) and, obviously, apparently alternative to the mainstream. They should not be read, decontextualized, in purely referential terms, not even in a condition of anonymity, such as that of the questionnaire (probably not considered sufficiently protective). The expressions, which often tend to underline independence from the other world, adults in particular, tend to exaggerate in the various possible directions. This is observed even in jargon, as in the use of neologisms such as *focussarsi*: to concentrate fire on a specific target, answer (308 C1): "Focus on the environment and let men lose even if this requires death or difficulties of some of them". It is a slang term used in shooter video games, a mélange between an English lemma, focus, commonly used in Italian, and a conjugation in the Italianized reflexive form. This text, however, is accompanied by meditations that we would think are more suited to a console game than to reality (do interferences exist other than in just the few pathological cases?) and we are referring to: "even if this requires the death or difficulty of some of them". This is a seemingly worrying phrase if we didn't consider the premise on adolescent expressive methods. Consider also the escalation (300-301-302 C2) that goes from "Eliminate political interests" to "Eliminate the big bastards of the world" to "Eliminate the human being", in a logic that goes from the shooter to the big shot, always provocatively.

There are various "I don't know" and other forms of denial of participation in the cognitive challenge among the answers, renouncing responsibility for the task assigned by the question. Then there is a sarcastic response that calls into question the assignment itself, asking in turn, in reference to human beings and the environment, with an unforeseen direct interlocution: "Oh, they're friends (?)" (110 C1).

There are single, multiple and articulated, or overall, "philosophical" direct answers that range from proverbial knowledge to astonishing hypotheses such as "the world is sick; there is no hope; we were born to suffer: birth [is] my phase of death" (348 C1). Some answers are simplifications of the problems, but by investigating the origins they seem to derive from a certain rhetoric of "easy resolution – you just need to want it", and this seems more of a political derivation, verifiable as jargon and ideology, in current affairs, tending to impose as a doctrine for the use of less informed people these simplistic and false solutions to questions such as environmental ones, which in reality are systemic and complex. Many other less trenchant answers go along the same lines of simplification such as "Pay more attention to the environment, that's all" (298 C1) where closure presupposes this idea of ease and will.

Identifying traces of external valorizations, of representations that overdetermine the children's representations, is a long task but one capable of giving interesting answers to the issues we are considering, that is, how to ensure that complexity is taken for what it is and therefore should not be addressed in a simple deterministic way, trivializing the world and its problems. To do this, our investigation obviously only represents the hypothesis of a path, a first step. Further investigations are hypothesized that intertwine multiple fields of youth knowledge and behavior because the hope is to be able to sufficiently interface the data collected by crossing different themes and universes of thought in order to be able to make the necessary discards for an investigation that returns an image which possibly corresponds to the facts and existing conditions.

We then encountered a series of requests for increases or decreases deemed necessary by the respondents. Here is another example of a simplistic rhetorical resolution through the idea of the increase of something or vice versa, its decrease – a synthetic form of the ascending and descending *climax* which takes hold, so we have a thread (502-542 C2) of major: major awareness, or attention, or coexistence, knowledge of the facts, involvement of institutions, communication, media coverage, conscience, information, respect, clarity, concreteness, education, instruction, sensitivity, transparency, protection, protection laws, demonstrations and congresses, sanctions, studies, which is echoed by the decrease, so we have (544-555 C2) fewer cars, fewer capitalism, control, selfishness, earnings, rubbish, car travel, waste, consumption. The youngest, for example, were limited to just 12 increases ideas (of the 22 choices of most adults) and 7 (of 9) decreases proposals. The major ones fall into the categories indicated except for awareness raising and solicitations addressed to the state as a request for citizen education. In the minors, the difference is represented by the request for "fewer roads" and "more trees".

In the analysis we can glimpse a first highly desired path, which concerns the demand for environmental education at school and in various extracurricular situations: it is the recognition of a gap to be filled, a statement that probably calls into question the path of carrying out environmental education because, at least in primary school, this is in fact already practiced on an experimental or voluntary basis, although officially only since 2020.

A second underlining of a lack comes from another strong idea which, to respond to a lack of presumably correct behavior, reacts in a realistic and pragmatic way, with proposals that concern important environmental regulatory solutions that are more stringent and closely linked to harsh sanctions for those who don't respect them. Both solutions are in line with real life expectations: either you know how to behave and you do it, or they penalize you. It is a classic attitude and therefore easily transmittable.

There is one aspect that goes against the grain. From a digitally native generation strongly based on virtual social networks, algorithms and infinite technological fields, one would have expected a particular emphasis, rather than on pure science, on technoscience and the related confidence in its ability to solve. On the other hand, and this is interesting, it is not present among the possible solutions hypothesized in either of the two participating groups, except almost as a countertrend.

Instead, there is a third massive emphasis which concerns the small daily things that should involve everyone in environmental protection activities. Both groups were interested and involved in environmental issues, with a series of differences, but both also expressed the idea of paying particular attention to small daily actions to safeguard the environment, something which may often be confused with simple acts of civil education.

The same feeling of lack of vision also derives from another insistent adherence to the proposal, which was expressed by the respondents, involving the need and urgency to autonomously modify their lifestyles, without considering that lifestyles are not, for the vast majority, autonomous choices. Indeed, there is very little free adhesion to what the entire system of consumption and related communications constitutes and promotes through very strong symbolic forms that become natural and obvious. The attribution of a possible pseudopersonal choice is only one of the forms of creating feelings of guilt for individuals, which also justifies maintaining the management of economic development in its status quo, precisely thanks producer/commodity/consumer vicious circle. It is interrelated indeed through the sharing of acceptance of lifestyles.

The creation of the new man undoubtedly involves the cultural revolution (Mortari, 2020), which is to be initiated first and foremost by children. However, due to the distracted naivety of the friendly fire of a practical pedagogy, in the face of considerable commitment, this new man has a very limited awareness of the world and seems to be pleased with their own small village. This can be read clearly from a considerable number of responses. Overall, we can glimpse a certain naivety in the understanding of world affairs on the part of young people who today are hyperconnected and certainly have the necessary information at their disposal as long as they are adequately supported by training agencies to become curious, to appropriate information, to make use of it and to filter it. Let us give an example. Phrases that indicate the potential solution to the problem in imperative propositions such as "Impose environmental laws on China" (ref 406-C2) are worrying due to the evident lack of training on the state of things, training which is necessary to understand that these issues cannot be resolved by a higher body but rather by intergovernmental agreement which, for example, would be the case of the various COPs (conferences of

parts). These are meetings in which shared solutions are sought by mediating between the many different interests of the States of the world and the many other circulating powers.

The last path is that of unlikely utopias, such as the many which hope for greater awareness, in which the promoting (active) subjects are multiple but implicit. Nevertheless, there is no definition of the origin of awareness, which is represented as an abstract, ideal, utopian and passive object. Indeed, the idea that is expressed is mostly that of an awareness that is given to inactive subjects, to human beings who would receive it without conquering it by more or less canonical means. Even when this awareness is described with a number of variations, such as sensitivity, it remains vague. However, it does give the idea of something that makes man capable of acquiring, even if somewhat miraculously, and managing a balance in the relationship with the environment, which is now lacking. These are requests expressed through volitional, wishful, partly exhortative but above all imperative propositions, manifested through the modality of the /having to be/ of the passive subjects, State subjects, i.e. those who will have to receive these desired skills, a situation in which the subjects of doing, of making one aware of this, are not only implicit but are to be found among the aforementioned pairs of opposites. They are distributed between the ideal, the prospective and the utopian, thus accounting for a certain distance from reality or, as we prefer to put it, for an approximation to reality.

On the other hand, the sometimes ideal hypothetical subjects are defined by the tasks they should perform and it seems like a reference to something similar to the "wise men" of Plato in *The Republic* or his philosopher-kings.

We need to reflect on this fraying of the relationship with reality, without there even being any awareness of a metaphysical dimension.

The feeling is that this state of things may bring with it the idea that the best but evidently not the only solution to environmental issues is monocratic rather than participatory. The "collective" construction of this abstract subject seems to hypothesize the more or less conscious idea that someone somewhere holds this absolute correct knowledge that they could provide for the resolution of the problem of the ethical awareness of humanity. It seems from the statements that this abstract entity, which cannot be named as a subject, could also be a superior being whose name cannot be pronounced. It would be an element of conjunction and synthesis between man and the earth (mother).

In reference to the questions asked in D10-D13 of the questionnaire, among the hypotheses used in the analysis, the verification of the actual resonance on the linguistic-lexical level of Greta Thunberg's communication was chosen, an element that allows a connection between the quantitative and qualitative analyses.

Some of the typical elements of Thunberg's elaboration compared with the lexicon of the interviewees would give results that go against the trend compared to the answers provided in completing the questionnaire, which showed a certain knowledge of both the character and the topics covered and an adherence to her statements. Despite having used a series of broad declinations of the lexicon that could be applied to understand the resonances of Thunberg's arguments in the language of the interviewees, the results, albeit with a slightly greater echo in the group of adolescents, do not seem to offer resonances of the themes.

Below is the table of lexical searches:

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1. you don't do what you say/promise (hypocrisy - inconsistency - simulation - ambiguity - falsity - duplicity - imposture - fiction - lie)
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2. you have to do more (do more - act - implement)
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3. you need to act faster (hurry - urgency - move - hurry up - accelerate - act quickly)
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This element could suggest a controversial situation, as if one part of the research denied the other. In reality, once again the complexity of communication and its articulation on different levels can lead to misunderstandings. Greta's communication method is extremely dramatic and theatrical, her pronunciation is tearful and emotional, and she seems almost overwhelmed, almost unable to express herself. The paralinguistic aspects (verbal, paraverbal, body language) are predominant and they are characteristic of her communication. The semantic factors are minimal but repetitive, with some mementos. These aspects contributed to spreading the hypothesis of a constructed, acting character among her detractors.

Indeed, these aspects of the way she presents herself and of experiencing her scene have probably left a strong image, which can be shared empathically, but with a weak verbal message that has been lost, at least in the linguistic specifics. Here lies the possible absence of lexical resonances.

In the game of interpretive controversies, we may say that the short sentences and synthetic stories typical of the *loghia* were made to be memorized, but evidently each era has different memories.

4. Conclusions and discussion

The common thread of this research from the qualitative standpoint was not only the achievement of results regarding the axiologies expressed by the participants, requiring exhaustive work on the corpus. The approach to segmentation by identifiable typologies is a more typical attitude of quantitative work. For us it was an experiment with new tools and the (partial) verification of their accessibility and relative capability of exploring and understanding the trends of the youth universe in greater depth, together with their way of expressing them. First of all, we sought to move beyond incorrect or stereotyped readings of the materials. With respect to the merits, in our case the investigation, in identifying the models present in youth representations, highlighted a certain distance from what we defined as *the state of things*, i.e. the argumentatively ascertained conditions of reality. The answers seem to struggle to find linear paths in the definition of the issues, looking rather for ideas that seem to represent a belonging or an identity instead of a reflection or a positioning.

There are many interpretations and personal definitions in the answers, but most of them are internal to the mainstream (in the sense of not being alternatives as they could appear to be due to the forms) and to its representations in presenting the concepts, i.e. the content level, while they are more personalized in the shapes used to outline them on the level of expression. Therefore, they attribute more importance to the form of the expression than to its substance. This is a problem which, in the act of signification, can create problems of attribution of meaning, as mentioned above, due to the idiolectal forms (partially subjective code languages) that this way of acting entails. This indicates, however, the power of the infosphere, which is not a homogeneous and cohesive structure, just as in some ways what is defined as mainstream for simplification is not really that but rather a nebula of different ideologies and visions which in some way go to build within them a polemical structure constituting a narrative¹¹ program that favors the polarized adhesion of the public, often divided into ideological targets, forming what in sociology is defined as mediatization.

This result signals an initial alarm on the ability of classical educational institutions to develop adequate awareness in students on the environmental issue or at least on their ability to make them able to counteract the representations that they have received. This problem is evidently accentuated by having to act on what we have defined as an in/formative substrate that is already sedimented and incorporated into a cognitive comfort zone of young people.

A constant proposal that is "innocently" presented in schools and that reverberates in the responses is the idea of the "little things" in everyday life, of small good personal practices. The concept is important, but it belongs to the sphere of good education tout court, not to ecological education. This way of developing an ecopedagogical practice in schools is often the result of misunderstandings between the way of presenting environmental pedagogy and the ability of teachers to assume its theoretical scope and to reformulate it in daily teaching actions. There is a risk of adhering to mystifying solutions such as turning off the water while brushing your teeth, which are obviously important but which are general educational issues and not environmental ones. Even if a kilo of beef needs 5,000-15,000 liters of water to be produced, the really bad aspects lie elsewhere. The minimal form of ecological education risks being counterproductive and contributing to further misinformation. The commitment of all to the hypothetical protection of the planet should not be understood as a solution to environmental problems, which the citizen can only solve to a very limited and somewhat naive extent if we consider the current emergencies. Rather, mobilization ethics and the collective sharing of an idea of the environment and its interactions are what are needed. Thus understood, the meaning of the training project would be oriented towards activating in populations the ability and will to get involved in the governance choices of environmental protection. Nevertheless, it risks getting stuck on comfort and identity and on the consolation effect of small personal gestures. This confirms the importance of a reflection that can free itself from stereotypes and clichés before becoming a pedagogy of change.

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¹ Given the space available and the lack of results in the quantitative field, this aspect will be discussed here only for illustrative references in the final part of the results referring to G. Thunberg.

² See Maupassant. Exercises in semiotics of the text by Greimas. The analysis of the three pages of the short story "Two Friends" (*Maupassant Tales*) consists of 462 pages with a ratio between the two texts of 150 to 1.

³ See the story of the Covid-19 pandemic on different fronts.

⁴ As COP 28 in Dubai demonstrated.

⁵ See, for example, the work of the Sociology Department of the University of Padua.

⁶ We cite our reference in the bibliography, knowing that the notes and reports on the topic are numerous and fundamental, but not on our specific topic.

⁷ Survey administered via CAWI (Computer Assisted Web Interviewing) by Demetra Venice.

⁸ /Approximation/ which is the result of the Latin *appropinquatio* (and *similitūdo*). Not to be confused as happens with /approximate/ which instead derives from *incertus*, almost the opposite, generating confusion about the meaning of the noun.

⁹ Cf. in this sense, the hypothesis of "post-normal science" formulated by Silvio Funtowicz and Jerry Ravetz (1997), which can be used when "facts are uncertain, values are in question, interests are high and decisions are urgent", based on the idea under certain conditions of proceeding, for example, with the establishment of specific peer communities that contribute to the determination of research questions.

¹⁰ In parentheses, the number of the answer and the corpus to which it belongs, indicated by C: Cn 14/18, Cn 19/29. The survey is available at IUSVE Venice.

¹¹ The terms used: polemical, narrative program, etc. are part of the semiotic metalanguage (narratology) and are not to be confused with the terms of natural language.