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THE CLIMATE IMPASSE - SELECTED CAUSES AND EDUCATIONAL IMPLICATIONS

ABSTRACT

The article discusses the influence of akrasia, procrastination and disinformation on the noticeable stagnation regarding actions for the climate protection. The climate akrasia means lack of actions despite being aware of threats resulting from passivity. Procrastination involves permanent postponement of activities and acting at the last moment. Those phenomena are aggravated by disinformation, which questions the climate change or distorts the picture of its causes, affect the decision-making process, and even the human being's mental state. The article demonstrates the need to create and implement educational strategies which take into account issues related to preventing disinformation, developing critical thinking skills and using reliable sources. Properly designed climate education may break the climate impasse, prevent climate akrasia and procrastination, as well as contribute to genuine climate protection and protection of the human being against consequences of the climate change.

The article employed the method of critical analysis of literature, reports, and other sources. This approach involved an in-depth and objective review of individual publications in order to assess them, examine the arguments presented by the authors, compare different perspectives, and identify potential research gaps. The use of this method made it possible to develop a perspective on the research problem that enabled the formulation of specific recommendations for advancing climate education.

KEYWORDS: *climate impasse, disinformation, akrasia, procrastination, defeatism, climate education*

INTRODUCTION

The climate crisis poses a serious threat to the future. During each international summit, an urgent need was expressed to take global actions and decisive steps, in order to prevent those negative changes, at least to some extent. As the practice shows, strategies and action plans, which were full of almost algorithmic solutions, have so far failed to produce the anticipated results.

Each year, the awareness of the climate change and its consequences for life on Earth is on the rise. There are organisations and groups of people which are genuinely involved in actions for the climate protection. However, what still predominates is those ones which demonstrate indifference, resignation, inactivity or lack of strong will to take actions, despite the feeling that it is

right and important, whether from the point of view of individual interest, or the common good of the present and future generations.

Moreover, the climate change discourse features proposals to move away from radical solutions in favour of adopting an adaptation strategy (Koonin 2024) or climate migrations (Nováček 2024). It may result from the assessment of the likelihood of success of pro-climate actions internationally. Europe is implementing sustainable development strategies (such as the Green Deal) with a focus on, among other things, combating climate change, while other major emitters like the United States and China are engaging in pro-climate actions with lower intensity and, so far, less effectiveness. Climate action in the USA is shaped by what is known as *start-stop politics*, meaning it is dependent on electoral competition and changes at the government level. China, despite its declared goal of achieving climate neutrality by 2060, continues to massively exploit non-renewable natural resources. This is illustrated by the 2024 Environmental Performance Index, in which European Union countries occupy the top positions, while the USA and China rank significantly lower (Block et al., 2024).

On one hand, we are witnesses to the EU's global climate policy, which in local conditions more and more often becomes a cause of conflicts and source of spreading disinformation, and, on the other hand, observers of scientists' alarming forecasts which lead to emergence of defeatist attitudes. Such situations and phenomena contribute to the climate fatalism, which poses a threat to the human being's condition and even mental health.

The aim of the article is to take a closer look at the phenomena of *akrasia*, procrastination, defeatism and disinformation in the context of the climate change, as well as to demonstrate their causes. Furthermore, educational guidelines will be developed to counteract passivity in the field of taking actions for the climate protection.

CLIMATE MANIPULATION AND POSTPONING PRO-CLIMATE PRACTICES

The climate impasse may be understood as a situation in which the assessment of the progress of implementation of actions for the climate protection indicates that it is significantly delayed. A number of reasons for such a state of affairs can be indicated, e.g. lack of international cooperation, financial issues, improper implementation of climate policies, people's insufficient involvement in combating the climate change, etc.

What, undoubtedly, belongs to the group of the phenomena which have contributed to that impasse is: disinformation, heuristics of fear understood as a climate change narration which results in concerns, stress, anxiety about the future and inability to take actions, as well as various reasons for postponing climate protection activities.

Disinformation is an intentional activity which consists in propagating harmful and often false content, in order to confuse or destabilise the recipient of the information. It is a form of propaganda whose aim is to distort facts, cheat or mislead. The literature of the subject enumerates four general components of disinformation: They include: a message which has been created on the basis of false or manipulated information; the intentional assumption of influencing the recipient for a purpose that is objectively incompatible with the recipient's own purposes; triggering a reaction which is consistent with the intentions and expectations of the person who spreads disinformation; and failure to take into account the negative consequences which the victim of disinformation will face (Kupiecki et al., 2022, p. 69).

Disinformation practices may result in a change of attitudes and behaviour, cause tension, deepen divisions, but also affect emotions as well as generate stress and anxieties. Academics warn that we are currently facing a global information crisis, the so-called 'infodemic', which requires the adoption of specific strategies to counter this phenomenon (Cover, Haw, Thompson, 2023; Haider, Sundin, 2022; Kirkpatrick, Randall, 2022). Mona Simion has identified two dimensions of spreading disinformation in societies. The first one consists in passing on conspiracy theories, disseminating superstitions or manipulation by means of propaganda, e.g. political one, mainly through

social media and the Internet. The second dimension of the infodemic is the rejection of or resistance towards the evidence presented by available credible sources of information as a result of mistrust, concerns and disbelief due to the prevalence of misinformation and the risk of false information being considered credible, which is related to it (Simion, 2023, p. 2). Disinformation is created through such tools, as, for example, fake news, content manipulation, providing true facts in a distorted or manipulated context, generating artificial online reactions, creating bots, deepfakes, fake websites, documents and even individuals or organisations (Mierzyńska, 2022, p. 14).

Research demonstrates that we encounter false information more and more often. Over 56% of the respondents who took part in a study on awareness of the phenomenon of political manipulation online, conducted by National Research Institute NASK, admitted that they had contact with manipulated information on the Internet. The study suggests that 37.1% of the respondents never checks whether the information they read online is reliable, whereas 37.8% do it sporadically (Raport Bezpieczne wybory, 2019, p. 10; 15). Furthermore, merely 4.5% of the respondents were able to differentiate between the fact from opinion (Ibidem, p. 17). Analysing psychological mechanisms in the context of vulnerability to disinformation, Paweł Zegarow pointed out that the human mind processes information from the environment so fast that it is not able to verify whether it is true at an early stage of its reception. For this reason, the information is almost automatically assumed to be true. At a later stage, a cognitive effort is made which allows analysing whether a piece of information is true or false (Zegarow, 2019, p. 30). Awareness of human cognitive abilities is used by persons disseminating disinformation, who smuggle in false information in such a way that it additionally strongly affects emotions, leads to tension, etc., thus making it difficult for the mind to analyse the truthfulness of the content received.

The infodemic, in its negative dimension, is a dangerous phenomenon also for the pro-environment activity, including the climate protection and prevention of the climate change. In this area, climate disinformation has been defined by the Climate Action Against Disinformation (CAAD) coalition. It has been agreed that the phenomenon refers to information which misleads through: denying the climate change and its effects, anthropogenic influence on the climate

change; undermining the recommendations of the Intergovernmental Panel on Climate Change (IPCC) and the conclusions of the climate agreement ratified in Paris in 2015; manipulating scientific data to distort them and undermine the competence of experts; promoting pro-climate content and activities which actually cause global warming (Report: Flame Wars, 2024, p. 9).

What is developed through climate disinformation is not only the negationist narrative (climate denialism), but also the delaying one, which questions the fact that climate action should be taken as soon as possible. Furthermore, disinformation helps foster the narration which builds the sense or belief that it is already too late to prevent the climate change. This type of climate disinformation particularly contributes to deepening the climate stress, and may lead to anxieties or even climate depression.

The climate disinformation also includes conspiracy theories which are usually attributed to politicians.

It is also worth mentioning new forms of climate denial, which have been described by Petersen, Stuart, and Gunderson as ideological denialism. In this case, scientific facts about climate change are not questioned, but solutions are proposed that are intended not to disrupt the existing socio-political order, instead directing our actions, for example, toward technological solutions. In this way, a misleading message is promoted-that innovative approaches or new forms of management will counteract climate change. As a result, there is no perceived need to intervene in the economic or social system, and no transformation in these areas is considered necessary (Petersen et al., 2019, pp. 117-119).

What is also currently noticed is a threat in the form of using the artificial intelligence (AI) to manipulate and distort information about the climate change. *AI will help spread climate disinformation. This will allow climate deniers to more easily, cheaply and rapidly develop persuasive false content and spread it across social media, targeted advertising and search engines* (Report: The AI Threats to Climate Change, 2024, p. 3). In The Global Risks Report 2024, the World Economic Forum identified using the AI for spreading disinformation as one of the most serious threats to the world (pp. 13, 17-18).

Akrasia and procrastination are phenomena which are usually associated with individual tasks and goals. In terms of actions for the climate, they may be analysed from the point of view of shared, socially important actions.

To put it as simply as possible, *akrasia* means delaying actions, choosing alternatives to what we intended to do, what was considered right or even a priority. In practice, it means that a given person acts contrary to the knowledge they have or their beliefs. A certain kind of paradox can be noticed, as both global and local sustainable development and climate protection strategies and programmes were immediately developed, and after some time it turned out that they were implemented selectively, delayed for years, or modified accordingly. It demonstrates certain tardiness in making pro-climate actions a reality, despite the awareness of the fact that goals which are crucial for the future need to be implemented. In the context of individual actions, the climate *akrasia* can be understood as a certain contradiction between what an individual believes is right and serves climate protection (e.g. energy saving) and their commitment to taking actions and specific practices (e.g. not using energy-efficient light bulbs, not limiting energy consumption). *Akrasia* is an example of practical inconsistency, as an individual knows what is good and what to do, but fails to do it, yielding, for instance, to the temptation of pleasure (e.g. choosing the car instead of public transport). Some perceive the climate change as a crisis situation, i.e. one which seems to be unclear, and it is not entirely obvious what should be done. Sometimes, in situations in which the amount of objective data is insufficient, people begin observing other people's behaviour, and treat it as reliable guidance and signposts indicating the right conduct. If majority fails to take a given action, the observer often does not seek an answer to what should be done, but follows the majority's reaction, and also does not get involved in that action. Searching for causes of *akrasia*, also with respect to pro-climate activities, we should mention explanation of behavioural psychologists. They argue that *akrasia* may result from the so-called *time inconsistency*, and involves our brain's tendency to appreciate immediate rewards (Clear, 2018). All projects and plans related to the future, including those connected with the climate protection, are perceived as a value by the brain. However, once the action has been implemented, the part of the brain which appreciates future rewards is no longer in operation. The human being wants to receive a reward for current actions, rather than in a few or a dozen or so years. Such a state is connected with weakness of will. In the event of tasks and projects related to the climate change, we can create visions of our

permanent involvement and pro-environmental practices, as well as have plenty of ideas and enthusiasm for implementing them. But once the time comes when we should begin implementing them, it turns out that we lack motivation for this very reason that we would have to wait for the reward for our actions. Positive changes in the environment are not sudden, but rather unnoticeable and slow, which is why the benefit must be deferred in time.

Contrary to *akrasia*, *procrastination* may be understood as postponing, for various reasons, until the last moment, tasks which were planned to be carried out in a specific period of time. The term is used to describe various types of delays in performing tasks and obligations. Klingsieck emphasises that it is “a voluntary delay in taking an intended, necessary and/or (personally) important action despite expected negative consequences which outweigh benefits (Klingsieck, 2013, p.26). In the case of threats resulting from the climate crisis, human beings do not just receive information about them, but also tangibly experience their consequences. Despite that, they postpone corrective solutions and actions which require certain sacrifices and implementing specific changes. Furthermore, it is noticeable that a lot of people perceive time as something unlimited, and can see numerous options for choice, which translates into a vision of the future as something distant and abstract enough that they do not feel the need to fulfil these obligations (Beutel et al., 2016, p. 5). In particular, due to the fact that the present time offers numerous temptations.

What may also be a cause of *procrastination* is the focus on problematic situations and negative thinking. In such a case, the conviction may arise that the task we plan to perform in order to protect the environment will be unpleasant, complex or demand serious sacrifices. Consequently, we postpone them.

Both *akrasia* and *procrastination* are phenomena which, first of all, are observable, and secondly are determined by other factors, e.g. psychological ones. They may be caused by emotional states, the values people identify themselves with, their upbringing, knowledge and even disinformation.

As far as emotions, mental states caused by the climate change and their influence on taking actions with respect to the climate protection are concerned, such emotional difficulties are noticed and increasingly often described as: *eco-anxiety* and *climate anxiety*, *existential anxiety* and *collective emotions*,

fear and panic, solastalgia, mourning, fatalism and hopelessness, apathy and melancholy, climate stress, climate depression (Budziszewska, Kiwak, 2022, pp. 175-179). Persons who experience difficult states in connection with the climate change require specialists' e.g. psychologists' help. The support for this group is undoubtedly insufficient. They may rely on grassroot initiatives, but often are not aware of the existence of support groups or helplines. According to the data included in a report prepared by Force of Nature, 56% of young people believe that we are doomed to extinction, and more than 70% feel helpless about the climate crisis (*The rise of eco-anxiety 2021* report, p. 11). The factors which aggravate anxiety and climate stress include following current information on threats related to the climate change. Using the Internet, we are also exposed to the above-mentioned disinformation. Searching, on a regular basis, for news and up-to-date data on the climate change, the human being becomes a victim of the so-called *information bubble*, i.e. an algorithm which filters earlier online activity, e.g. in search engines. Consequently, we are exposed to information from non-substantive sources.

CHANCES OF OVERCOMING THE CLIMATE IMPASSE – EDUCATIONAL RECOMMENDATIONS

Prevention of the climate disinformation should include actions which take into account two types of factors creating favourable conditions for spreading false content – internal and external ones (Mierzyńska, 2022, p. 44). The first of them, also referred to as psychological ones, are connected with strong emotions, absence of social trust or its low level and social polarisation. Emotions, which is confirmed by extensive research (Lerner, Dorison, Klusowski, 2024; Ibanez, Roussel, 2021), affect choices and decision-making processes also in the area of environmental protection and climate care. For instance, anxiety, concerns about the world's future or helplessness may make the human being less vigilant and become more susceptible to disinformation. *In emotionally challenging situations, disinformation (in various forms) turns out to be able to satisfy emotional needs. Fake news and conspiracy theories are able to quickly eliminate uncertainty by ordering the world according to a recognisable*

pattern – this is due to the fact that they can be used to ‘sort out’ emotions and news according to a previously known order (Mierzyńska, 2022, p. 45). It helps achieve internal peace and sense of safety. External factors are connected with the operation of certain algorithms on social media platforms. They are used, for example, to customise the results of the content searched by web browsers.

Climate education should focus not only on the knowledge of the climate, data about the climate change, its consequences and ways of protecting it. What is important is to prevent climate disinformation by building resistance to it. Making people sensitive to be vigilant against false content involves developing skills connected with verification of information sources and using those which are appropriate and reliable. Such actions should be aimed at large audiences which may have different, even divergent, views on the climate change. While teaching the search for reliable and checked sources of information, we should not impose adoption of a certain position, but shape the ability to build one's own opinion on the basis of reliable academic research and studies, rather than random mentions, catchy headlines and emotionally tinged content.

Consequently, what is needed is a common-sense approach to educational activities in this area, which takes into account a right narrative about the climate and its change. It is important, as various scenarios of the *climate* future trigger certain emotions which are not indifferent to the human psyche, and genuinely affect the motivation to take pro-climate actions. The climate defeatism is a phenomenon based on fear and sense of hopelessness, which result from the belief that the climate policy goals are unattainable. Thanks to educational activities which are not based on the *climate dark pedagogy* and catastrophic narrative, but on constructive and solution-oriented tasks, it is possible to reach avoidant, anxious and withdrawn personalities.

The group of Polish academics (Web-1) who implement the *Climate Change Emotions* project, noticed that for a lot of people the climate change is a source of strong emotions which affect their involvement in pro-environmental actions, and created a questionnaire to measure climate-related emotions (Inventory of Climate Emotions). The project indicated what the emotional experience of the climate change can be described by means of such emotion categories, as: anger, hopelessness, enthusiasm, loneliness, sense of guilt, sadness, contempt and anxiety. Each of those emotions may significantly influence

the motivation to undertake actions aimed at protecting the environment and climate. For this reason, the team of scholars, attempting to determine how the relations between emotional reactions to the climate change influence the pro-environmental activity, analysed various climate change narratives. To this aim, it prepared Emotional Climate Change Stories, by means of which the above-mentioned climate-related emotions were examined. The results achieved should be considered to be important from the point of view of implementing the climate education and contribution to creating a climate change narrative which will help taking decisions aimed at protecting the environment and climate (Zaremba et al., 2023).

Manipulative activities related to the dissemination of false information on the climate change will, to a lesser extent, affect persons who know, first of all, that the phenomenon does and, secondly, where to look for reliable information. *The phenomenon of 'the doubt manufacturer' demonstrates that in the risk society the existing role of the independent expert in the area of the basic science is undergoing a significant modification. Alongside knowledge experts, professionals in the field of doubts and uncertainty appear* (Bińczyk, 2013, p. 64). In the age when the threat of spreading false information on the Internet is constantly on the rise, it is important to carry out various educational activities aimed at developing the skills of critical analysis of information, methods of analytical thinking and the improvement of digital competence in this respect. Furthermore, it is worth teaching how to differentiate information from opinions, as well as making people more sensitive to what psychological mechanisms and forms of manipulation are used by those who create fake news.

Due to the rapid spread of climate disinformation, it is necessary to implement counter-strategies through education. S. Lewandowsky proposes strategies such as fact-checking and debunking, prebunking, concrete communication, clear messaging about climate change, cooperation with digital platforms, and information campaigns. According to the author, only a multi-level approach to countering climate disinformation can effectively build societal resilience to manipulation, which blocks action, influences emotions, and causes confusion and anxiety (Lewandowsky 2021, pp. 9-11).

On the other hand, identifying and understanding causes of akrasia and procrastination in climate protection actions may help create more effective educational and incentive strategies. The strategies which, apart from indicating what should be done for the climate, will also support people in overcoming internal reluctance, and activate them to act in line with their beliefs.

The work on implementing the climate education in Polish schools is underway (Gola, 2023, pp. 174-178). What was developed, for example as part of the Climate Education Round Table, was detailed recommendations regarding the content which should be reflected in the core curriculum. The recommendations read as follows: *The climate education and concepts related to the climate change should be approached holistically – virtually in every subject and teaching area available there is space to include topics related to the impact of human activity on the environment, to assess its consequences for the surroundings and changing reality, or to analyse the processes taking place in our lives and nature.* (Kassenberg, 2022, p. 37). What was also reflected in the document was the need to shape the climate competence, which consists of knowledge, skills and attitude. Consequently, the student who completes formal education should communicate, while talking/writing about the climate and its change, and be able to verify climate-related information, assessing its scientific reliability, as well as demonstrate responsibility for their actions which may influence the climate (Ibidem, p. 36).

What is also worthwhile, as part of the climate education, is to instil values which may make people more sensitive to issues connected with the social and natural environment, as well as motivate them to take actions (Klimska, 2019, pp. 167-169). Such values include, for example, responsibility, solidarity, justice, common good and moderation. However, the values must not be imposed upon, but what should be demonstrated is their importance for implementation of pro-climate activities aimed at protecting another human being and the whole planet. The climate education, in view of the above-mentioned threats in the form of disinformation, akrasia and procrastination, will bear fruit, if targeted strategies and actions are developed, i.e. those which assume that specific goals can be achieved. Actions which may be used in various educational contexts, but, for example, take advantage of multimedia, active methods, i.e. project-based learning, learning by doing, flipped classroom,

develop creativity, create favourable conditions for integration and acquiring practical experience, as well as sharing them with society (e.g. voluntary work). What is meant here is such forms of conducting the climate education which would encourage reflection, allow its subjects to understand consequences of various choices and importance of individual involvement in issues connected with protection of the environment and climate.

CONCLUSION

Currently, no one undermines the significance of implementation of the climate education. However, actions in that area are not carried out at the expected pace. The climate change involves not only threats to the natural environment, but also to the human being. It is not just about the difficulties associated with the inconvenience of high temperatures in the summer, or various threats posed by severe weather anomalies such as storms, tempests and floods. More and more often the climate change deteriorates the human mental state. It results in anxiety, stress and even clinical depression. They can be caused by the damage incurred, e.g. in crops as a result of drought, or damage to homes after an intense storm. Furthermore, by concerns about the future in connection with threats for the economy, social changes, such as an increase in the number of climate refugees or higher incidence of illnesses connected with air pollution. Consequently, risk management strategies should also include the educational sector. The point is to raise awareness of the climate change, demonstrate adaptation measures, prepare for and prevent the dangers resulting from it. The threats are not only connected with dangerous weather phenomena whose consequences are sometimes unpredictable, but also with indifference, idleness or absence of people's real reaction. The latter result from, among other things, akrasia, procrastination, defeatism, which, in turn, may be connected with growing disinformation, which leads to information overload, causing tension, anxiety and sense of hopelessness, which translates into lack of motivation to take actions. For this reason, the climate education should include those elements of media education which allow achieving goals related to climate protection and protection

of the human being in connection with the climate change. Infodemic and increasingly frequent fake news reduce trust in the media, politicians, but also academic authority. Disinformation also leads to deepening of social divisions and polarisation of opinions, which makes it difficult to take unanimous actions, in line with the climate policy adopted. What, consequently, is a challenge for education is teaching critical thinking, developing information analysis skills and the use of reliable sources of information. It is an important step in the climate change prevention strategy, and crucial one, as it often determines the decision to join the action. However, inaction in the face of growing problems related to the climate change may enhance stress and the state of resignation. Remaining in the state of defeatism and lack of hope for the positive change puts additional emotional strain and increases the risk of mental health problems. Consequently, the climate education may help shape cognitive competence in the field of climate change issues, and, in addition, protect from the phenomena of akrasia, procrastination as well as potential loss of mental health.

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