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## **The Stereotype of Zero-sum Games and Global Environmental Threats**

### **Vihren Bouzov**

**Abstract.** The problem considered in the paper is whether the stereotype of zero-sum games is applicable to present-day discussions on environmental threats. Decision theory could be considered as a tool to substantiate the philosophical notion of rationality of actions and in this aspect, it could be a good methodological instrument of philosophical economics. Decision theory can be used to assess positions in problem situations and predict possible solutions in terms of gains and losses. This can also be applied to human actions in relation to nature. In the paper this theory is used to assess the moral and political validity of the positions of developing countries against the main claims of the forceful countries for unified solutions for protection of the natural environment. Justified solutions in the field of environmental security can be sought only by overcoming the economic and social imbalances and corporate interests.

The most justified perspective for international relations and in searching for solutions of present-day social and ecological conflicts is to move from the form of a zero-sum game, in which the powerful countries win and the poor ones invariably lose, to a true non-zero-sum game suitable for implementing cooperative strategies. This type of development can become a reality only on the basis of a new social contract, based on pluralism and balance of interests, on the scale of all humanity.

Key words: decision theory, zero-sum games, philosophy of economics, environmental threats

### **Introduction**

Decision theory could be considered as a tool to substantiate the philosophical notion of rationality of actions and it could be a good methodological instrument of philosophical economics in this aspect. It can be considered instrumentally as the efficiency of the chosen means or in an axiological context - with a view to achieving certain goals. Decision theory can be used to assess positions in problem situations and predict possible solutions in terms of gains and losses. This can also be applied to human actions regarding the environment.

The zero-sum game argument is usually applied to justify the claim that wealth is accumulated due to robbing poor people. Is it applicable to the protection of the natural environment: can some powerful countries achieve ecological balance at the expense of others? In this paper, this theory will be used to assess the moral

and political validity of the positions of developing countries against the main claims of the forceful countries for unified solutions for sustainable development. Is it morally justified for them to want to experience their own industrial progress after the Western countries have done so at the expense of the rest of the world? The question of human moral and political responsibility of today's generation on a planetary scale is fundamental to the philosophy of economics.

The present-day global confrontation can be described not only by the battle for dominance in the distribution of natural resources and trade roads, but also by the competition of projects for the use of new sources of energy. Some of them, such as the Green Deal and the Kyoto Process with the sale of carbon emission allowances, aim to undermine the foundations of the traditional fossil fuel economy and bring huge profits to corporations that develop green technologies. Along with this, they lead to an increase in prices and limit the opportunities of developing countries to follow the steps of the developed world towards industrialization and modern entrepreneurship. A further complication is that the decisions must be made in the context of global environmental panic, generated by the media and certain ridiculous interpretations of scientific data in ecologic publications (Lynas 2007; Spencer 2008). Panic and conspiracy theories have become a companion to all the major crises that humanity is going through today. They are largely determined by the intentions of the economic and political elites to transfer the burdens of the crises to ordinary people.

### **The Stereotype of Zero-sum Games: Argument Reconstruction**

The problem considered in the paper is whether the fallacy or the stereotype of zero-sum games is applicable to the contemporary environmental threats. The British philosopher Roger Scruton (1944-2020) reveals the role of a fallacy of zero-sum games as the basis of left-wing criticism against the power of economic oligarchy and the division of poor and rich, as well as some key theoretical ideas such as Marx's theory of surplus value:

“Every loss is another’s gain. All gains are paid by the losers. Society therefore is a zero-sum game in which costs and benefits are balance out, and in which the winner's winning causes the loser’s loss”. (Scruton 2010, pp. 80-81).

From a logical point of view this argument contains a fallacy: a result of stereotypical thinking (Bouzov 2022). This stereotype has been adopted by socialists from Saint-Simon (1760-1825) and Marx (1818-1883) until today, who are convinced that the rich have seized their wealth by denying the poor a chance. According to Scruton, this stereotype also functions in the assessment of international relations between developed and developing countries. Leftist critics believe that the loss and misery of some is the result of the gain of others. Poor countries are robbed by the rich through colonialism and present-day corporate capitalism.

For the conservative philosopher, this is a false presumption to justify the failure of people, communities, and states. We must note that in his book he spared neither left nor right thinkers for their delusions, but let us ask ourselves whether the criticized stereotype refers to the problems of ecology and its intersection with ethics, ecological policy and sustainable development? Can nature be considered as a resource in a zero-sum game? And how could we explain the logical fallacy in this type of thinking?

If we accept this explanation for the environmental crisis, then it would be natural to worry that our planet is depleting its resources due to the greed of rich countries. We will also have to agree that underdeveloped countries do not have a successful course for their future because the world is at risk and decisive action is needed to save the planet.

One could rightfully say that here we are dealing with stereotyped thinking when the genus  $A$  is identified with a chosen species  $B_i$  for someone  $i, i \in \{1, 2, \dots, n\}$  and every element of the genus  $A$  is seen as belonging to the species  $B_i$ . The general is subsumed under the particular or singular. Consequently, the characteristic features for each object of a given set  $B_i$  are attributed to all objects of  $A$ . They function as having one and the same volume. The selection of a species from among all

available from the corresponding class and accepting it as representing the entire internally heterogeneous genus has no logical justification, and it is also a logical error called the fallacy of generalization. This means that what is typical of all zero-sum games is unreasonably extended to all conflicting relations of resource distribution - between poor and rich people, workers and capitalists, developed and poor countries!

It is true that the use of a type as representing the whole genus is a means of facilitating thought. We do not always need to consider all species that are no more than "types" for the genus concerned. Typology is an incomplete classification - listing only some of the species of a given genus. But here we are talking about the transfer of characteristics from an individual object to all species of a given genus. The use of such a technique has no logical justification or emotional basis and is not aimed at achieving a specific goal, in this sense, it is not by definition a means of manipulation, but rather - for effective communication. The choice of a species as representing the characteristics of the entire genus is arbitrary and depends on many factors such as knowledge or ignorance, awareness, education, upbringing and social position.

Do poor countries have a moral right to make a claim to the rich to be given a chance for their own industrial development outside the environmental restrictions of the Kyoto process? Are they the main victims of global pollution as a result of the over-exploitation of natural resources, and do they have to now submit to the dictates of their developed competitors to cut emissions and engage in the sale of "air", i.e. super expensive quotas for the right to release harmful emissions into the atmosphere. Is the global ecology a system of communicating vessels, in which the gain for some is the loss for others and flourishing on their backs with very unfavorable ecological consequences? Can the world's system of global injustice be broken and offset by the refusal of poor countries to participate in collective environmental constraints - cutting emissions, switching to renewable sources? My arguments for answering the first question in the affirmative are in the next fragment.

## **On the Ecological Security and Moral Responsibility of the Developed World**

The first argument is that there is a basic type of social security, namely ecological security, which inevitably requires systemic thinking. This type of thinking does not allow a nominalist approach to complex social interactions and brings their complexity to the fore. Relationships in a system cannot be modeled without considering the internal dependencies between elements. The system approach requires first to define the whole, then to make its functional description and to examine the object of cognitive interest through its role within the whole, the functions performed by it. A system is a set of elements that, as a complex object, possesses characteristics which each of them individually does not possess. In this aspect, systemic knowledge implies considering things in their functional relationship and unity.

Security can be seen as the process of maintaining satisfactory control by the subject over the effects of the environment on the subject (Bouzov 2010). A security environment is the totality of all interactions of a social subject. The relationship between the subject and the environment can be analyzed through a systems approach. Social entities can be individuals, groups (organizations or communities), society as a whole. When the subject maintains the effects of the environment in favorable parameters for his/her development, it is normal. When this is not the case, we have a crisis situation. The dangers that arise from the environment in relation to the social subject can be divided into challenges, threats and risks. Challenges are harmful impacts that may go unnoticed or misinterpreted. Threats are recognized with the naked eye, they precede and cause crises. Risks are threats with a constant duration.

Security can be analyzed at certain levels as the difference is in the types of social entities and in this context, it is thematized in public discourse. In the dimension of national security, we distinguish personal, group and state security. It flows into the dimension of international security, within the framework of which

we can separate the individual security of the state, regional and global security. In the global age, crises at all levels of security are interconnected – a crisis at one level affects all others.

Ecological security finds expression in the possibilities of the social entity to overcome threats against its social and natural environment. It would be justified to say that there is insufficient scientific evidence that human activity threatens the survival of our planet. Its effect is negligibly small and has consequences only in a regional aspect. It can be argued that it only makes sense to protect the immediate habitat of a social community.

Therefore, in this sphere, it will be more justified to talk about a nonzero-sum game, which requires the formation of coalitions for a fair distribution of access to natural resources. The maintenance and propaganda in the media and false experts' opinions of the threat of ecological destruction of our planet cannot be accomplished without the thesis that we have a zero-sum game in this area.

It may be objected that the relationship between society and nature is very fragile and threatened with disaster. Its violation leads to ecological catastrophes, forced migration and crises threatening the survival of the humankind. Environmental security can be seen as a fundamental social and political value for modern humanity. It refers to the entire planet, which is a single system, and in this sense implies the model of a zero-sum game - imbalance in one area inevitably affects another, pollution from rich countries has consequences for everyone else. The distribution of ecological goods is such that the accumulation of resources in one center leads to their depletion in another, and in general the amount that is distributed and redistributed is limited.

This argument can be countered on the grounds that the effects of human activity cannot be so significant as to completely change the natural resources of the planet - climate, water, air. They most often have an impact on a regional level and actions must be taken to overcome the negative consequences. People from local communities should take care of their own environment. Climate change has its own dynamics that have natural origins.

The connection between global injustice and ecological insecurity is the next important argument. The most significant risk factors for environmental security are caused precisely by corporate capitalism. The world's resources are distributed in an extremely disproportionate relation to the labor, economic and social contribution of the respective people and elites of powerful countries. In the years of colonialism and the post-colonial era, the West continues to find opportunities to conquer the natural resources of poor nations - the wars in the Middle East and North Africa are another manifestation of this process.

Neoliberal capitalism is not able to ensure the reproduction of modern humanity under normal conditions, nor to guarantee more people a quality of life similar to that of the richest countries. Today, one third of humanity lives in monstrous conditions of malnutrition, squalor, lack of income, poverty. 18 million people die each year from poverty-related causes. (Pogge 2005, p.30). It is the moral responsibility of rich people to try to put pressure on elites to solve global problems, reject neoliberal capitalism and improve social conditions worldwide.

Ecological security on a global scale has been trampled by the corporations, economic and political elites who, without concern for the protection of the natural environment, have brought our small planet to a real crisis, threatening its very existence. The effects of this irresponsible behavior are reflected in the air, soils, animal and plant life. They should not be attributed to humanity as a whole, but to the socially irresponsible type of capitalism that dominates today's unbalanced and unjust world. Policies to ensure environmental security require investments and are not profitable, so corporations and their political proxies refrain from them. They do not have a direct or indirect economic effect, and in the large scale of modern industrial production, fines for violations of environmental legislation are often smaller than the benefits achieved.

Since the end of the Cold War, our world has not become a safer place. The geopolitical confrontation, the intense struggle for natural resources, for control of trade and energy routes and markets continues to develop more and more dynamically and cover all regions of the world. The international security system,



inherited from the Cold War era, is today neither able to prevent regional or worldwide conflicts, nor effectively counter the new global threats to humanity. All this leads to the strengthening of inequalities in the distribution of goods on a global scale.

Applying decision theory to the discussion of ecology means talking about the rationality of collective decisions. If all conflicts in their game modeling are equated to those of capturing the other party's resources, this means that we have no social explanatory theory for them. The distribution and care of the planet's natural resources is a problem of fair distribution, which can only be done on the basis of cooperative principles and collective responsibility.

We distinguish zero-sum and non-zero-sum games. At zero-sum ones, the sum of the gains is zero and a gain for one is a loss for another. They are a special variety of fixed-sum games where players cannot increase or decrease the game's resources. With them, the formation of coalitions is necessary, which inevitably harms a country. Games are called cooperative, or coalition, if the participants in them can unite in groups and mutually coordinate their actions. In non-zero situations, gains and losses do not cancel each other out.

Here we will briefly sketch the basic types of game strategies in situations of game confrontation between players with different interests. The first strategy is for everyone to choose according to their dominant option. An option is dominant for the decision-maker if they prefer the outcome of its selection to the selection of any other; however, the other actors act, or prefer it in some context of their actions, remaining indifferent to others. If this is not available and uncertainty exists, the agent may make a choice according to a rationalizable option dominating the current situation. The best option is to choose that action that leads to the realization of equilibrium, or balance, in the game. A pair of actions is in equilibrium if each is the best response to the other - if each brings to the agent a result that they cannot improve upon in view of what the other does (Schick, Fr., 1997, p. 88- 91). Choosing according to the dominant option is related to enduring value orientations.

Is it possible to express the general interest by assigning its protection to a specific individual - a proxy? The logic of decisions has an answer to this question as well (Schick, Fr., 1997, p.106-112). The parties who have reached some kind of agreement can assign someone else to carry out the actions for them. This is the role of the proxy. When the decision is assigned to proxy, no one can play solo. People know their agreements are binding. For the proxy, a new selection logic is needed, consistent with that of the subjects who authorized it.

The proxy can be described as a social proxy, and the problems it faces are social ones. We might consider one such option as a composite of possible human actions. It is more realistic, however, to treat the proxy's options as the results of such compounds in situations that an individual person, excluding the proxy, cannot create. The proxy can be understood in two ways – as coordinating what people do, doing it for them, and as bringing about the result of some combination of what they might do. The agent is obliged to choose the given action in the light of those human values which bear on his choice. We can think of the proxy as a general manager or representative.

The logic of decisions reaches the necessity of accepting an important methodological premise – a thoughtful concept of sociality. Social action is not simply collective or group. It is related to the orientation towards certain shared values that give meaning to the choice of action. Social is a complex matter related to the development of human communities. The fact that individual choices of action take place in a social context does not make them social, but their purpose and role in communication, joint actions to transform reality. Constructive social goals lead to the development of human communities, to the complication of their internal interactions. Arguably, neither game models nor substitution of social choice by proxy exhausts the actual essence of sociality. Society is characterized by properties that are not reducible to combinations of individual choices. Public interests and values are objective, as well as individual ones. (Bousov 2017)

The environmental problem of nature preservation must be solved through understanding among all interested parties. The developed countries cannot play

the role of a proxy, because this role of theirs is called into reasonable doubt by the reckless policy of world conquest. A balanced understanding is needed between all parties based on the cooperative principles of solidarity, cooperation and collective responsibility to preserve the planet for future generations.

The global clash between the powerful and the developing countries, finds its most significant expression in discussions about environmental security and the limitation of harmful emissions. Poor countries have asked in the last few world ecological forums for a chance for their industrial development, and when they did not get it, they spoke out against the agreements made by the rich world. This opposition is realized by a variety of means – from financial and economic pressure to military interventions. Excluded countries try to build their own alliances to oppose any form of dictation. Such a development is particularly visible today in Latin America, Asia and worldwide.

In a world where corporations continue to conquer territories in the Third World to indiscriminately consume its resources and use their political elites as proxies for selfish interests, there is really no moral basis for the claim of a common environmental policy. The victims of the damage to the natural environment of our planet are precisely the poor countries and their citizens, on whose backs the rich have built their prosperity. It might be argued that the world today is such a connected system that any violation of the ecological balance is inevitably reflected in various aspects, and it is even difficult to predict the scale of its consequences.

However, we can argue that corrupt elites are not the main cause of the Third World's backwardness, but the web of global dependencies that place it under the sway of transnational corporations. The elites of rich countries are also deeply corrupt, but some win and others lose in the global economic competition! Political colonialism was replaced by economic debt colonialism and new forms of economic slavery. Poor countries have been turned into testing ground for new cheap production and harnessing of energy resources.

At the same time, the environmental policy of the West has all the hallmarks of imperialism and unforgiving expansionism. It also makes poor countries' opposition to curbing emissions morally justifiable. Environmental actions such as the sale of "air" or "quotas" for harmful emissions are pure nonsense and trample on the rights and interests of poor countries. And what about the EU programs to encourage the production of energy from renewable sources? They have turned out to be a form of lobbyist politics, which in our country has led to infinitely immoral profits of certain oligarchic circles at the expense of ordinary citizens.

The production of electric batteries for cars can turn out to be far more dangerous to the environment than traditional fuels. The search for alternative energies such as hydrogen does not yet have a reliable basis in scientific data and is likely to be far more expensive than those currently in use. We see what kind of crisis comes only from limiting the supply of gas and raising its prices - we can hardly foresee the times bigger crisis from the transition to new sources of energy. We can note that philosophical analysis can provide useful skeptical arguments against policies of rapid environmental transition, which may prove costly and ineffective for citizens of developed countries as well.

The rich countries owe their progress to the reckless use of the natural environment, and now they want to stop the claims of the poor for industrial development! As regards the planet, environmental conflicts are truly a zero-sum game. They bring profit to some and loss to others. Therefore, humanity must solve these problems by consensus. But it is rather an exception in today's unfair structure of international relations.

At the same time, environmental agreements to limit harmful emissions must consider the right of poor countries to independent economic progress! The responsibility for nature conservation should be proportional to the share of resources that the respective countries consume. It would be true to say that the US, Russia and China are pursuing a selfish and hypocritical policy in this regard!

## **Conclusion**

Humankind needs a new social contract to solve global problems fairly, including environmental ones. It could be based on communitarian values (Petkova, 2017). The way to it is through restoring the sovereignty of oppressed countries and, putting pressure on rich countries, to overcome forms of economic enslavement and develop fairer world economic and social relations. Change must come from poor countries coming together to defend their common interests. Processes in Latin America offer some good prospects in this regard. Only by overcoming the economic and social imbalances can justified solutions be sought in the field of environmental security as well. Only in this way can international relations move from the form of a zero-sum game, in which the rich win and the poor invariably lose, to a true non-zero-sum game suitable for implementing cooperative strategies. The latter will lead to the protection of the common interests of the countries and their citizens without harming anyone's interest.

## **Conflict of Interest Statement**

The author declares that there is no conflict of interest.

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