# A Comparison of Theories Related to Climate Justice

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Abstract: This paper discusses the issue of climate justice and the theories that have emerged to address it. The paper compares and contrasts the positions of two theories, utilitarianism and egalitarianism, on climate justice. Utilitarianism theory advocates for the pursuit of maximum happiness and places efficiency first. It emphasizes how to get the most benefit in the issue of greenhouse gas emissions. Egalitarianism theory, on the other hand, is based on the core value of granting everyone equal rights and treating everyone as an individual with unique values. It is reasonable that everyone has the right to emit the same amount of greenhouse gases. The paper also defines climate justice as a value system that requires all entities and individuals to be treated in the face of climate change. It is understood as a comprehensive concept that can be explained by axiology and practice. In terms of axiology, climate justice should include values such as security, equality, fairness, freedom, and efficiency. In a practical sense, climate justice should be embodied as enforceable legal norms.

**Keywords:** Climate change Environmental Justice; Greenhouse gas emissions; Utilitarianism theory; Egalitarianism theory

#### 1. Introduction

Climate justice is a global issue that has attracted considerable attention in recent years<sup>[1]</sup>. How to fairly determine the carbon emissions of countries is the core issue of climate justice. For example, this has been a recent focus in the press, such as "climate change is a justice issue and Carbon: How calls for climate justice are shaking the world". Based on this issue, there are lots of theories emerging to discuss climate justice. The early climate justice theory, based on the utilitarianism and intergenerational justice theory, emphasizes how to get the most benefit in the issue of greenhouse gas emissions<sup>[2]</sup>. However, with the in-depth understanding of climate problems, the climate justice theory changed for the first time. It focused on how to distribute the greenhouse gas emission rights among contemporary countries<sup>[3]</sup>. The demand for equality of individual right and development was the hot topic of this period. With the indepth research and discussion, it was found that the key problem of climate justice, which was difficult to solve, was the huge gap between rich countries and poor countries with regard to development. It has resulted in the discussion of climate justice focusing on the relationship between feasibility of climate justice and the development gap between rich and poor countries. The principal contradiction of the current climate justice issue is the contradiction between the growing threat of climate change to the future survival of mankind and the social and economic development of contemporary poor countries[4]. Developed countries should take the primary responsibility for climate justice and fulfill the obligation to help poor countries to achieve further social and economic development through financial support and achievement of new technologies. In view of current dilemma of climate issues, this essay selects the utilitarianism theory and the egalitarianism theory to analyze this problem and critically compare and contrast the positions of these two theories on climate justice.

## 2. Definition of Climate Justice

The concept of climate justice went public in the 1990s. Later, the Bali Principles of Climate Justice issued by the International Environmental NGOs Alliance in 2002 further proposed 27 principles of climate justice, but there are significant differences in the understanding of the concept of climate justice [5]. For example, according to the Climate Justice Research Center of the University of Caledonian in Glasgow, climate justice is defined that human beings are responsible for the impact of greenhouse gas emissions on the poorest and most vulnerable groups of society [6]. According to Sultana [7], climate justice is defined as how climate change has had different, uneven, and asymmetric impacts on people, and to address the resulting injustices in a fair and equitable manner. Both definitions focus on the impact

of climate change, and address this impact as a focus of climate justice. In addition, Vanderheiden defined climate justice as: climate change refers to an unfair global distribution [8]. In general, climate justice refers to a value system, which requires all entities and individuals are treated in the face of the climate change. It is understood as a comprehensive concept, which can be explained by axiology and practice. In terms of axiology, climate justice should include values such as security, equality, fairness, and freedom and efficiency. In a practical sense, climate justice should be embodied as enforceable legal norms.

## 3. Comparison of Theories Related to Climate Justice

## 3.1 Utilitarianism theory

Utilitarianism is a typical teleology that advocates the pursuit of maximum happiness and advocates that human behavior should be judged morally based on the results of the behavior, that is, based on the overall consequences of the behavior and the overall welfare it produces, to determine whether the behavior is correct <sup>[9]</sup>. As long as the behavior results in more benefits, it is moral, otherwise it is immoral. For the utilitarianism theory, the goal of society is to increase the total amount of human wealth, regardless of how it is distributed. Therefore, it opposes giving priority to the poor simply for the sake of equality. Utilitarianism places efficiency first <sup>[10]</sup>. In the issues of climate change, the question that needs to be answered by the early climate justice theory is mainly the intergenerational justice: why should people sacrifice the interests of contemporary people and take more care of future human beings, even if they do not know their race, identity, living conditions, means of production, and even whether they are bound to exist in the future <sup>[11]</sup>.

At present, the answer to this question mainly borrows from the Principle of Vulnerability Reduction: if something that other people do intentionally or unintentionally is extremely vulnerable to harm to a certain type of person or person, such persons have the right to claim the reduction of the harm [12]. Specifically, in the future, human beings are extremely vulnerable to climate change caused by intentional or unintentional greenhouse gas emissions of contemporary people, so they have the right to demand that contemporary human beings bear the necessary costs for mitigating climate change. Traxler split the Principle of Reducing Vulnerability into two parts and added Locke's argument [13]. According to Locke's argument, there are two main reasons for the establishment of intergenerational justice: first, if the past and present emissions will harm future generations of human beings, those who make these emissions may be opposed because of causing such harm. Therefore, these responsible persons shall bear corresponding obligations for the future potential victims of such harm. Second, people have the obligation to help others avoid harm, that is, they have the obligation not to let harm happen to them, especially when they can do something and they cannot and do not want to do it. [13]. Traxler's [13] added Locke's argument is: because it is obvious that contemporary humans do not leave enough and good atmospheric greenhouse gas absorption capacity for the next generation, it can be concluded that the acquisition of contemporary people (atmospheric absorption capacity) is unjust, so this generation should compensate for the injustice suffered by the next generation. In view of this issue, the utilitarianism theory was applied to explain issue of climate justice [14].

The utilitarianism theory implicit in the United Nations Framework Convention on Climate Change was expressed in the most detailed way by Stern [15]. According to Stern the right choice of climate justice theory should be: human beings can compare the consequences of different strategies and actions by thinking about the overall welfare [15]. This is a typical expression of classical utilitarianism with the goal of maximizing the results. Moreover, for the interpretation of "overall welfare", Stern pointed out that the most common way to express the overall measurement of happiness is real income [15]. Therefore, it can be understood Stern's method as: to judge the advantages and disadvantages of different climate theories and policies by comparing the impact of various climate theories and policies on the overall real income. Obviously, Stern's method is also in line with the requirements of the Convention on cost effectiveness and minimum cost mentioned above [15]. Therefore, the core issue of Stern's utilitarian climate theory is how to maximize the overall welfare, that is, the actual income, and how to fairly recognize the carbon emissions of each country, the core issue of climate justice, is not within Stern's scope of consideration, at least not the main issue Stern studied. Therefore, no matter how many benefits Stern's utilitarian-based climate theory can bring to mankind as a whole, it cannot solve the problem of how to determine the carbon emissions of countries fairly, which is caused by the theoretical defects of the classical utilitarianism theory it uses.

#### 3.2 Egalitarianism theory

Egalitarianism is a widely adopted ethical principle, and its core value is to grant everyone equal rights and treat everyone as an individual with unique values [16]. Therefore, egalitarianism may require the rich to make greater sacrifices, but it may also require the poor to make the same efforts in terms of undertaking obligations. For example, in many regions of Africa, Asia and Latin America, the average annual carbon dioxide emissions per person is only 0.2 tons. In contrast, the average annual carbon dioxide emissions per person in industrial countries are between 12 tons and 20 tons [17]. The United States and Europe emit 30% of the world's carbon dioxide, but their population accounts for only 10% of the world's population [18]. These estimated carbon dioxide emissions reveal the real impact of the United States and Europe on global warming: 90% of the carbon dioxide emitted in the atmosphere in history was generated in the United States and Europe [19].

According to egalitarianism theory, it is reasonable that everyone has the right to emit the same amount of greenhouse gases [20]. In other words, everyone should receive the same amount of greenhouse gas emissions regardless of their nationality, gender, age, and ability. If the ability of the earth to absorb greenhouse gases is a global public good, such public goods should be distributed equally on the basis of human heads. It is difficult to find reasons to prove that citizens of developed countries have the right to emit more greenhouse gases, while citizens of developing countries can only obtain a smaller share of emissions. Only when everyone has the same share of emission rights can the distribution scheme be fair. The former President of the International Society of Environmental Ethics Jamieson pointed out that everyone has the right to emit as much greenhouse gases as others [21]. It is difficult for people to find reasons to prove why as an American or Australian, they have the right to emit more greenhouse gases, while as a Brazilian or Chinese, they can only obtain less emission rights. On the issue of climate change, egalitarianism needs to first clarify the question of whether to allocate emissions rights equally according to countries—external equality, or to grant equal per capita emissions rights to every citizen of the world [22]. Therefore, on the issue of climate justice, egalitarianism is aimed at all people in all countries. The rich in poor countries may have greater greenhouse gas emissions than the poor in rich countries.

## 4. Comparison and contrast of two theories in climate justice

In view of the similarities between utilitarianism theory and egalitarianism theory in explanation of the climate justice, distributive justice theories recommend the use of flexible economic tools, such as tradable emission rights and carbon taxes <sup>[23]</sup>. In cases, a globally uniform price for greenhouse gas emissions has been established. In the case of egalitarianism and utilitarianism, both theories are expected to improve the well-being of the most vulnerable groups and the overall well-being, respectively. Thus, it can be seen that the egalitarian theory, like the utilitarian theory, is a just distribution policy oriented towards the future. Moreover, both theories are focused on intergenerational distribution.

By comparing the utilitarianism theory and the egalitarianism theory in explanation of the climate justice, there are distinctive differences between them. According to utilitarianism, in the choice of plans to deal with climate change, it should choose the plan that can maximize human welfare, rather than the egalitarian one [24]. In the distribution scheme of greenhouse gas emission space, the ethical basis of egalitarianism is the theory of rights and morality, and the ethical goal of the appeal is the priority of "social equity". However, in any distribution scheme, there is a contradiction between fairness and efficiency. Ensuring a fair space distribution scheme for greenhouse gas emissions does not necessarily guarantee the maximization of efficiency and value of the whole society. Utilitarianism is an ethical theory that emphasizes social efficiency first. In the view of egalitarianism, the goal of dealing with climate justice is to achieve social equality, while it is believed by utilitarianism that the goal of all matters including dealing with climate change should be to improve the overall welfare of society. Therefore, utilitarianism emphasizes the priority of efficiency to equity and the priority of allocating greenhouse gas emission space to countries, departments and groups that can produce the greatest economic and social efficiency.

However, it should be noted that these two theories have their weaknesses. The distribution of greenhouse gas emission rights according to the egalitarianism theory may also cause some problems: if the number of people at a certain point in the future is taken as the distribution base of greenhouse gas emissions, countries may increase the number of people as much as possible. If the current population is used as the distribution base of greenhouse gas emissions, those countries that are about to enter the baby boom and those with a small population will be at a disadvantage. The egalitarianism theory will make developing countries face greater development pressure. In view of utilitarianism theory, as Rawls

pointed out, the weakness of utilitarianism is that it does not care--except indirectly--how the total amount of satisfaction is distributed among individuals. It is the deficiency of this theory that causes Stern's utilitarianism theory to fail to see the possible distribution injustice in order to meet the maximization of results on the distribution issue, which deviates from the main issue of climate justice, and therefore is not suitable for and cannot solve the problem of climate justice. The utilitarianism theory excessively pursues the maximization of the overall welfare and ignores the justice issue in the confirmation of carbon emissions in various countries, which has caused criticisms. For example, Moellendorf claimed that this theory has a problem, and the prominent problem is that if the behavior that produces small benefits to many people in other time will cause serious pain to people in a specific time, as long as the total of these small benefits exceeds the total of serious pain, this behavior is reasonable [12]. In other words, there is an extreme possibility of utilitarianism: in order to improve the small benefits of human future generations, it may make the contemporary people pay a huge price, and the small benefits may be meaningless for human future generations. This is obviously an overly harsh and unfair requirement for contemporary people.

#### 5. Conclusion

In the essay, it can be seen that even if developed and developing countries share the same principles of climate ethics, they may also draw conclusions that are beneficial to themselves. For example, for egalitarianism, developed countries claim that only current equality should be considered, while developing countries think that historical cumulative equality must be considered. Regarding the utilitarianism theory, developed countries state that the overall welfare reduction caused by their own emissions reductions is greater than the transfer of emissions rights to developing countries, while developing countries claim that development is more conducive to improving overall welfare than emission reduction. In the context of global response to climate justice, the core ethical choice faced is to allocate the costs of addressing climate change among different countries and populations. Therefore, in the process of addressing climate justice policies, it is necessary to explore relevant theories in order to obtain the moral rationality of policies. Ethical principles can provide a moral judgment framework for specific actions, choices, and policy formulation to address climate justice, and define the rights and obligations of different countries and groups through these ethical principles. This essay compares egalitarianism and utilitarianism in explanation of justice. By comparison, it can be seen that compared with utilitarianism theory, egalitarianism theory has significance in climate justice. It is mainly reflected in the fact that egalitarianism theory naturally coincides with the core issues facing climate justice. In view of utilitarianism theory, it points out that the main task of developing countries is to promote economic growth and eradicate poverty, and reduce greenhouse gas emissions are not and should not be a priority for developing countries.

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