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## **Framing climate change in Montreal 2005: An environmental justice perspective**

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### **Abstract**

This paper is based on my Master's thesis where I discuss climate politics from the perspective of international environmental justice. I examine how climate change is framed as a problem from the point of view of responsibility in the political statements of the Montreal Climate Conference in 2005. I analyse the research data with the help of frame analysis and Perelman's theory of argumentation thus looking for argumentation concerning responsibility, its underlying premises and techniques of argumentation. The results suggest that climate change is framed as a problem in two different ways. In some statements (mainly from developed countries) climate change is considered as a problem of greenhouse gas emissions. Here, describing climate change as a treatable global problem and highlighting economic aspects is typical. In other statements (mainly from developing countries) climate change is represented as a problem of vulnerability and scarce resources. The perspective is local and statements emphasise climate change as a threat to the development efforts of these countries. The premises and techniques of argumentation differ between frames. In addition, there is struggle within frames; both frames encompass different claims about how responsibility should be distributed and what responsibility includes.

**Keywords:** environmental justice, responsibility, climate politics, Montreal Climate Conference, framing, rhetorical analysis

### **1. Introduction**

In the last few decades a vast scientific and economic literature on climate change has emerged but surprisingly little has been written on ethical dimensions (Brown, 2003: 229). This has also been the case in the Finnish policy and newspaper discussions which have concentrated on the physical and economic aspects of climate change and policies. Yet, as Brown (2003: 229) points out 'because human-induced climate change will most hurt the poorest on the planet, seriously reduce the quality of life for future generations, and threaten plants and animals around the world, global warming must be understood to raise very serious and deep ethical questions'. In this paper, which is based on my Master's thesis, I discuss climate change

and politics from the perspective of environmental justice, which as a broad concept directs attention to how environmental benefits and burdens are distributed among currently living people, among current and future people and among human beings and non-human nature, as well as how their views are taken into account in environmental decision-making. I highlight some aspects of environmental justice more by focusing on one theme in the politics of climate change in particular, namely on responsibility. In addition, I concentrate on the international dimension and distributive justice. Internationally climate change is governed through the United Nations Framework Convention on Climate Change (UNFCCC) and through its legally binding amendment, the Kyoto Protocol. States negotiate these treaties and the future direction of international climate politics in annual Conferences of Parties, where states that have ratified the Convention or Protocol are represented by their delegations. In this paper environmental justice is examined through the Conference of Parties held in Montreal in 2005. The Conference was significant and historical because in addition to being the eleventh Conference of Parties to the United Nations Framework Convention on Climate Change it also served as the first Meeting of Parties to the Kyoto Protocol since it came into force in 16 February 2005. It was one of the most productive conferences as well, and the largest intergovernmental climate conference since the adoption of the Kyoto Protocol in 1997 with some 10000 participants.

As a whole the perspective of my research towards climate politics is a cultural political one. Hajer (1996: 256) speaks of the cultural political approach as a way to ask 'what sort of society is being created in the name of protecting nature'. In other words, environmental policies and discourses also have broader cultural implications. Hence, in this research the perspective directs attention to the ways of speaking about climate change; how it is defined and framed as a problem but also what perspectives of social reality are connected to these definitions (see Haila and Jokinen, 2001: 280). Therefore one purpose is to reveal premises and commitments which operate so that some issues and scenarios seem relevant while alternative scenarios are excluded. A central question in the cultural political approach according to Haila and Jokinen (2001: 281) is also the relation of environmental politics between social and political inequalities.

## **2. Environmental justice, responsibility and climate politics**

### **2.1. Environmental justice and responsibility**

Environmental justice encompasses various different issues. Cases of environmental injustices can be seen everywhere; in the local struggles between forestry and other livelihoods in Finland, in the export of toxic wastes from developed nations to developing as well as in the causes and consequences of climate change. The term 'environmental justice' has its origins in the environmental justice movement developed in the USA, which attracted attention to the connection between race and exposure to environmental risks. The environmental justice movement has broadened to address global issues as well. These range from the exploitation of

commons resources in developing countries to the shifting of environmental pollution from developed to developing countries (Byrne et al., 2002: 8-9). International environmental justice relates mostly to the relationship between developed and developing countries, which has been uneven and imbalanced. Global environmental problems such as climate change, ozone depletion and declining biodiversity have further emphasised the need to focus on the international dimension of environmental justice (Byrne et al., 2002: 9).

Evidently, the notion of environmental justice has been used to advocate various different issues. I follow the suggestion of Ikeme (2003: 200) to consider *environmental justice* as 'the broad, overarching concept encompassing all justice issues in environmental decision-making'. As a theoretical framework I consider environmental justice to encompass distributive and procedural dimensions (see Anand, 2004; Ikeme, 2003; Paavola, 2005, Paavola and Adger, 2006) as well as three justice relations or specific issues of justice (see Lehtinen, 2003; Sajama 2003; Sachs and Santarius, 2007). The *distributive dimension* refers to the distribution of environmental benefits and burdens (see Anand, 2004; Ikeme, 2003) or to the beneficial and adverse effects of environmental decisions or action (Paavola 2005: 312). The *procedural dimension*, on the other hand, refers to participation, being able to influence the decision-making process (Ikeme, 2003: 197-200), and recognition (see Schlosberg, 2004). In other words, the distributive dimension is concerned with outcomes while the procedural dimension is concerned with the way the outcome is attained. The justice relations, on the other hand, refer to the question about community of justice (see Dobson, 1998); among whom environmental benefits and burdens are divided and who are taken into account in procedures. The three justice relations are: the relation between all the human beings in the world living today (*intra-generational justice*), the relation between current and future (as well as precedent) human beings (*intergenerational justice*), and finally the relation between human beings and rest of the nature (*biosphere justice*) (see Lehtinen, 2003; Sajama, 2003; Sachs and Santarius, 2007).

In this paper I focus on the distributive dimension and the intra-generational aspects, and more specifically on international issues within climate politics. I examine environmental justice through the content of responsibility and the distribution of responsibility between states. Justice is thus considered as 'the fair distribution of rights and duties' (Björn, 2003: 24 - translated): justice means that duties or responsibilities are to be divided between parties fairly. But what does responsibility actually mean? One way to define responsibility is 'the actor's power to influence something so that the activity promotes, maintains or violates some values or objectives' (Raitio and Rytteri, 2005: 119). Responsibility can be divided in terms of the dimension of time. Birnbacher (2000: 9-10) distinguishes between ex post and ex ante responsibility; the former is retrospective and refers to answerability of an act or default in the past, whereas the latter is future oriented and refers to obligations and duties. Both aspects are present in climate politics.

## **2.2. Politics of climate change and environmental justice – distributive justice issues**

The distributive dimension of international environmental justice draws attention to the causes and consequences of climate change as well as to mitigation and adaptation policies.

### **Causes and consequences of climate change**

The justice concerns within the causes of climate change refer to the question ‘who have caused the problem?’ because countries do not release the same amount of greenhouse gas emissions to the atmosphere (Sachs and Santarius, 2007: 183). As Adger (2004: 1712) sees it, ‘climate change is a fundamentally unjust burden, an externality from past and present polluters that use the global atmosphere as an open-access resource’. That is, certain countries, businesses and people have contributed to climate change historically as well as at present more than others. In addition, greenhouse gas emissions (at least carbon dioxide emissions) correlate closely with income levels (IPCC, 2001b: 87) and thus considerable emissions mean considerable economic benefits. Internationally compared, in the year 2004 the Annex I countries of the UNFCCC accounted for 46% of global greenhouse gas emissions while their population accounted only for 20% of the world population (IPCC, 2007b: 3). In addition, UNEP has estimated (in Sachs et al., 1998: 72) that between 1800 and 1988 developed countries have produced over 80% of the global increase in the atmospheric carbon dioxide. The intra-generational perspective raises the question whether the atmosphere is considered as a global resource; are everyone equally entitled to it? The intergenerational perspective, on the other hand, makes one to consider the rights of future generations to a healthy atmosphere and environment, but also to ask whether the current generations can be held responsible for the activities of the past generations.

The positive and negative impacts of climate change – ecological, economic, social, cultural, etc. – also raise questions of justice as the distribution of the projected impacts of climate change will not be even. In addition, the way climate change affects countries is at variance with their historical responsibility for these impacts (Ikeme, 2003: 200). Reasons to the uneven distribution are the present climate or location of countries as well as their relative wealth and level of economic and technological development – rich and technologically advanced countries have more capacity to anticipate and to adapt to changes (Pittock, 2005: 120-121). The most vulnerable regions with low adaptive capacity of human systems are Africa, developing countries of Asia, Latin America, and small island states (IPCC, 2001a: 14-17). Economically speaking, impacts will be negative in many developing countries while many developed countries will have both economic gains and losses up to a temperature increase of a few degrees Celsius; this will increase the disparity in well-being between these countries (IPCC, 2001a: 8). Climate change also has ecological impacts. Some species may benefit from climate change and their abundance

or range may increase, but some species will suffer as climate change increases the risk of extinction of some species and loss of biodiversity (IPCC, 2001a: 4-5).

Questions of justice related to the impacts, adaptation and mitigation of climate change are closely connected. An important question is how much warming and how vast impacts will be allowed. The UNFCCC gives an answer to this; the ultimate objective of the Convention is to stabilise 'greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.' (UN/FCCC, 1992: 4) But how effectively will climate change be dealt with and how fast will greenhouse gas emissions be reduced?

### **Mitigation and adaptation**

Climate change mitigation is negotiated and regulated within the UNFCCC and the Kyoto Protocol. Currently the developing or non-Annex I countries do not have emission reduction obligations, whereas the developed or Annex I countries that have ratified the Protocol have agreed to binding emission reductions in the period 2008-2012. However, at some point aggregate emission reductions will be needed as the emission reductions of 1.3 billion people in Annex I countries may become inadequate compared to the growing emissions from 4.7 billion people in non-Annex I countries (IPCC 2001b, 89). How, then, should the burden of mitigation be divided? What would be a just distribution of the atmosphere if the world's absorbing capacity will be taken as the upper limit of greenhouse gas emissions? Thompson and Rayner (1998: 318) discuss three basic ethical positions on distributive issues: 1) egalitarian, 2) contractarian, and 3) libertarian. The *egalitarian perspective* relies on parity; equal shares to all – also in the case of emission rights. Thus the emission permits would be allocated on a per capita basis, and the common suggestions are contemporary and historical per capita allocations. The *contractarian perspective* is based on proportionality where benefits are allocated according to, for instance, contribution or need. Emission rights allocation suggestions are some kind of combinations, for example combining population size, GDP and current emissions. The *libertarian view* calls for allocation based on priority through successful competition. In climate politics this would mean allocating emission rights on the basis of countries' GDP or in proportion to their current emissions; historic emissions would not be added in. Allocation according to this view takes place through markets by preference or the ability to pay.

According to the IPCC's Fourth Assessment Report some warming and impacts will inevitably take place in the future (IPCC, 2007a) and therefore some adaptation will be necessary. The distributive justice implications of adaptation refer to the adaptive responses producing certain positive and negative effects as well as to the scale and distribution of residual climate change

impacts (Paavola and Adger 2006, 597). Here, the main distributive justice dilemmas according to Paavola and Adger (2006, 595 and 597) are the responsibility of developed countries to climate change due to their greenhouse gas emissions, the amount of assistance the developed countries should give to the adaptation of developing countries, the distribution of burden of assistance among developed countries, and the distribution of assistance between recipient countries as well as between adaptation measures.

### **2.3. Responsibility within climate politics**

Responsibility is a concept and a theme often discussed in the literature about justice in the politics of climate change and it is regarded as an important aspect when considering measures against climate change. Ikeme (2003: 200), for instance, sees the distribution of responsibility as a major environmental justice issue in the climate change debate. He does not, however, specify the meaning of responsibility. Responsibility is usually mentioned when discussing historic emissions. For example, Gardiner (2004: 583) discusses responsibility for past emissions and sees it as a justice issue of practical and theoretical importance. Paavola and Adger (2006: 595) and Paavola (2005: 310) consider the question of the responsibility of developed countries for climate change impacts as one of the main justice dilemmas in terms of adaptation to climate change. Adger (2001: 923-924), too, discusses responsibility in this historic sense, but also in relation to current and future activities. He argues that 'Justice within mitigation issues surrounds both the historical responsibility for enhancing atmospheric concentrations of the main greenhouse gases and in allocating present and future responsibility for action' (2001: 923). Distribution of burdens in managing climate change encompasses, for instance, emission reductions (Tóth, 1999: 2). Responsibility is thus something to be shared in relation to current and future mitigation and adaptation policies.

### **2.4. Framing climate change**

How has climate change been constructed and framed as a problem at the international level? And how are countries disposed towards climate change and the justice questions it raises?

In his dissertation, Tirkkonen (2000) discusses discourses within climate politics. According to him (2000: 14-15), the hegemonic climate discourse is based on scientific knowledge about climate change and its management through international environmental politics. Tirkkonen identifies several linkages between the hegemonic climate discourse and ecological modernisation. These are, for instance, the preventive aspects in climate politics, international management of the problem, market centricity and the idea of combining both environmental protection and economy, known as the idea of a positive sum-game (2000: 203-4). Ecological modernisation has become a widespread western environmental discourse (Laine and Jokinen, 2001: 64). In addition to the hegemonic climate discourse, there are also counter and alternative

discourses. The counter discourses in climate politics are: 1) structural discourse which discusses climate change as a deeper global political, moral, economic, and cultural crisis (Wynne, 1994 in Tirkkonen, 2000: 15), and 2) adaptation discourse which emphasises the need to face climate change impacts. Both of these discourses are constructed from the premises of the hegemonic discourse but they question the measures the hegemonic discourse promotes. Instead, the structural discourse would primarily aim at reconstructing unjust economic structures and supporting developing countries, whereas the adaptation discourse would allocate resources to adaptation in order to avoid impacts. In addition, there are two alternative discourses, that is discourses that are not dependent on the framework of the hegemonic discourse. The first one questions the foundations of the hegemonic discourse, either climate change itself as a phenomenon or the grounds of international climate politics, or both. Another alternative discourse frames the concern about climate change as solely power politics or competition on research financing. Tirkkonen maintains that the hegemonic discourse and its counter discourses have grown more powerful, whereas the alternative discourses have become more marginalised (2000: 13-15).

What about the perspectives of countries towards justice and responsibility in the politics of climate change, how do they, then address these questions? Ikeme (2003: 200) discusses environmental justice conceptions of the South and the North that he has identified by a literature survey and argues that their ideas about environmental justice differ. According to him (2003: 200), the developed countries focus on the 'most economically efficient path for minimising climate impact and delivering global ecological health and stability'; emissions are reduced where it is most cost effective and where there are greatest emission reduction opportunities. This also means that the developed countries accept that in terms of costs they should bear greater burden than the poor countries, and that giving resources to the developing countries is accepted, not because of historic emissions, but because of an ethical duty to help the poor, a sense of charity. They put little emphasis on historic emissions and their constraints on the development of developing countries. The developing countries, on the other hand, concentrate on three notions. Firstly, they seek compensatory justice; historical emissions should be taken into account in addressing present entitlements. Secondly, developing countries support the idea of burden sharing based on equal per capita entitlements and thirdly, they also stress procedural justice issues; increased participation in the climate change negotiations. The developed and developing countries thus agree that the developed countries should bear a greater burden for climate protection and that transfer of resources should be allowed to the developing countries although they base their conceptions on distinct reasons and moral positions (Ikeme, 2003: 200- 203).

### 3. Research design, data and methods

The general purpose of my Master's thesis is to examine climate politics from an environmental justice perspective. In the empirical part I focus on distributive dimension and intra-generational aspects within environmental justice, and more specifically on responsibility from an international viewpoint. My research problem is the following: How is climate change framed as a problem from the point of view of responsibility in the political statements of the Montreal Climate Conference in 2005? This is divided into three research questions:

- 1) How do different parties perceive the content and distribution of responsibility in climate politics in the statements presented in the Montreal Climate Conference?
- 2) What are the premises underlying these conceptions?
- 3) What rhetorical techniques are applied to representing and explaining responsibility in climate politics?

In this paper, I concentrate mainly on the research problem. Figure 1 illustrates the research design in my thesis.

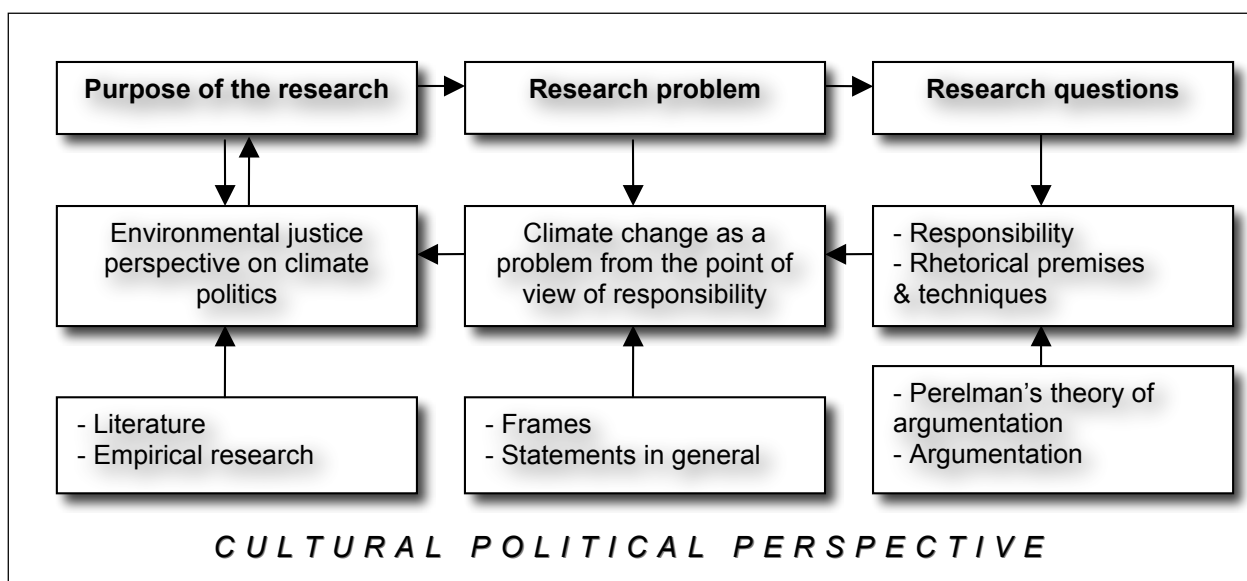


Figure 1. Research design

#### 3.1. Research data and data collection

The research data consists of all the political statements made by Ministers and heads of delegation in the high-level segment of the Montreal Climate Conference in 7-9 December 2005. There are 120 statements in total, comprising statements on behalf of the Group of 77 and China,



the European Union, the Least Developed Countries, the Alliance of Small Island States, and on behalf of the Annex I parties to the Convention that are member states and observer states of the Arctic Council; and 115 individual statements from states that are parties to either the Convention or both the Convention and the Protocol (81 states). Most of the statements – 81 of them – were from states belonging to non-Annex I parties while 39 statements were from Annex I parties. The statements made by states present the official view and position of the country and thus exclude the diverse voices of, for example, individuals, non-governmental organisations or indigenous peoples. Statements represent the state as one unanimous actor even though the state operates within different policy sectors with diverse and competing objectives and interests as Jokinen (2001: 80-81) notes. Accordingly, statements are compromises.

### **Data collection**

The statements are found as webcast in the web site of the UN Framework Convention on Climate Change ([www.unfccc.int](http://www.unfccc.int)). I listened to the statements and transcribed them. After having transcribed all the statements, I still listened to them once more to revise and to make corrections to the texts. In total there were 118 sheets of data, that is about 1 sheet per statement. The fact that some of the statements were interpreted in English at the Conference might have changed some of the original meanings and emphasis. However, the analysis of the data is based on general and recurrent findings, not on individual words, phrases or ideas. Before using the actual research methods I studied and processed the data with Atlas.Ti.

## **3.2. Research methods: rhetorical analysis and frames**

### **Rhetorical analysis and Perelman's theory of argumentation**

I use rhetorical analysis in the sense of discussing 'how some versions of reality strive to present themselves as convincing and acceptable, and how the listeners, readers or interlocutors are made to commit themselves to them' (Jokinen, 1999: 126 - translated). I employ the concepts and tools developed around the new rhetoric of Chaïm Perelman which discusses the general principles of making claims credible and worth of committing oneself to as well as different techniques of argumentation (Summa, 1995: 76-77). There are three central aspects in the new rhetoric of Perelman: 1) the relationship to the audience, 2) the premises of argumentation and 3) the techniques of argumentation (Tuulentie, 2001: 45; Kuusisto, 1996: 275-88; Summa, 1995: 77-84). The first aspect, the speaker's relationship to the audience, means that argumentation is essentially argumentation for someone (Jokinen, 1999: 128). The second aspect, the premises of argumentation, refers to some areas of unanimity between the speaker and the audience on which the speaker can base the justifications of argumentation; they are one means of constructing convincing claims (Summa, 1995: 78 and 1996: 69). The premises are the basis of argumentation that can be taken for granted. Perelman distinguishes between *premises that*

*relate to reality* and *premises that relate to preference or preferable*. The former refers to facts, truths and presumptions, which are associated with the idea of normality, whereas the latter refers to values, hierarchies and the locus of the preferable (Perelman, 1982: 23). The third aspect, the techniques of argumentation, discusses also the ways to convince an audience. Whereas the premises can be regarded as already accepted general justifications, the techniques of argumentation aim at justifying certain conclusions (Summa, 1995: 80). Perelman distinguishes between *arguments that are given in the form of a liaison* which 'allows for the transference to the conclusion of the adherence accorded the premises' and *arguments in the form of dissociation* which 'aims at separating elements which language or a recognised tradition have previously tied together' (Perelman, 1982: 49), that is, the course of argumentation is either associative or dissociative (Summa, 1995: 81). I focus on the second and third aspects of Perelman's theory.

### **Frames as methodological and interpretative tools**

In sociological research the concept of 'frame' comes from Erving Goffman (1974) who used frames in the meaning of schemes of interpretation through which people observe, recognise and name different events and activities; frames give sense and meaning to these events (Väliverronen, 1996: 106). The idea of diversity is essential; in most events many issues take place simultaneously, and people may also interpret and frame the same event in different ways (Horsti, 2005: 49). Goffman and others have used frame analysis to examine the interaction of people face to face in different situations. However, it has also been applied in a broad sense to the research of social problems and movements, to journalism (Väliverronen, 1996: 108) as well as to the research of environmental social science. In this research frames are essentially practical methodological and interpretative tools for answering my research problem: 'how climate change is framed as a problem from the point of view of responsibility'. Frames as a methodological device resemble the concepts of discourse or interpretative repertoire (Saaristo, 2000: 43). The idea is that climate change is not the same kind of problem for every state, but there are different versions of it, which emphasise but also leave out different questions and measures. A frame thus embodies a shared understanding about climate change as a problem, but also more broadly a shared understanding about what is the preferred social world and values within it. The frames in this research, as with Väliverronen (1996: 111), are the result of concrete empirical research, not the basis of it.

### **3.3. Analysis of data**

During the analysis and interpretation I concentrated on two main issues when reading the statements. First, I considered how climate change is discussed by the states in general; how climate change is framed as a problem. As I started to be familiar with the research data, I began to distinguish roughly two ways of describing and speaking about climate change. Framing thus

encompasses reading the statements as a whole. The research problem is answered partly with the research questions and partly with the other aspects of the statements, and the most prevalent and important features of these are included in the frames to shape more generalised ideas about climate change as a problem. The frames hold shared ways to speak of, understand, construct and justify the problem. However, the frames can also contain different claims about responsibility.

Secondly, in order to answer the research questions I searched for argumentation concerning responsibility in climate politics. Claims concerning the content and distribution of responsibility answer my first research question. For the second and third research questions, I analysed what kind of premises underlie these claims and what kind of justifications support them. The premises and the techniques of argumentation are salient in how arguments are presented as credible, but they also construct climate change as a problem. I further grouped these claims (and thus states) according to their content into coalitions.

Figure 2 represents the analytical framework which I used when reading and analysing the research data. This figure is inspired by a figure presented by Perimäki (2001: 5) in her study about the actors and arguments in the Finnish climate politics (see also Best, 1987: 102 for a figure similar to Perimäki's). The figure connects the social context or rhetorical situation (see Kakkuri-Knuutila 1998: 234-35) with the aspects of argumentation as understood by Perelman.

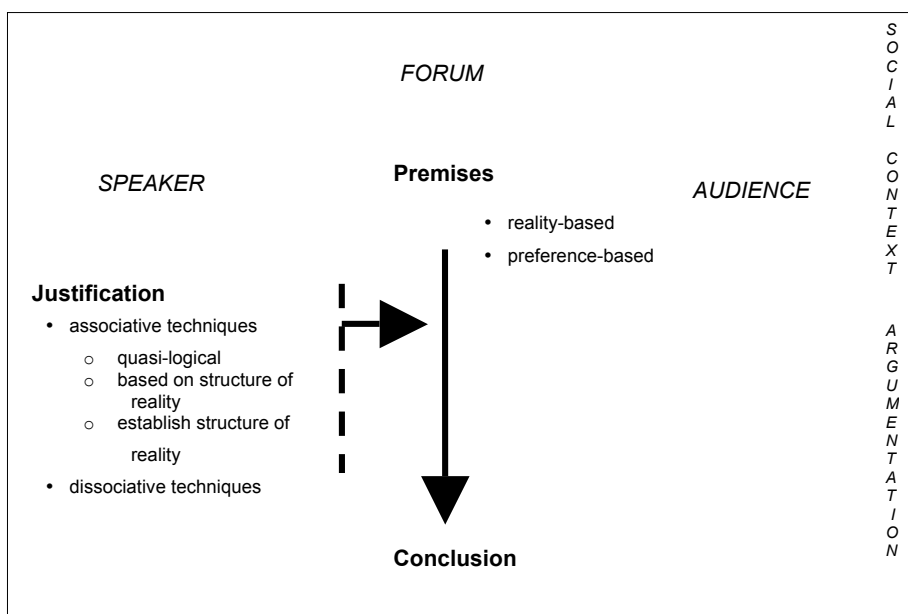


Figure 2. Analytical framework: social context and argumentation

The forum, the speaker, and the audience refer to the social context of the statements, the rhetorical situation. The *forum of the rhetorical situation* is Montreal Climate Conference and the

*speakers of the rhetorical situation* are the Ministers and heads of delegations representing the states. There were about 9500 participants in total in the Conference of which 2800 were members of official delegati

ons (Berghäll, 2005: 5). This is the concrete *audience of the rhetorical situation*. However, the concept of audience is not restricted to the audience in attendance, as the audience can be global through the media. The speaker and the audience also relate to the first aspect of Perelman's theory, the relationship to the audience. The premises are the second aspect in Perelman's theory. They can be either reality based - premises that relate to reality -, or preference based - premises that relate to preference or preferable. Justification refers to the third aspect of Perelman's theory - the techniques of argumentation which are divided into associative (quasi-logical arguments, arguments that are based on the structure of reality, and arguments which establish the structure of reality) and dissociative techniques. The conclusion refers to the claim.

#### **4. Results**

The results suggest that from the point of view of responsibility climate change is framed as a problem in two different ways: in some statements climate change is considered as a problem of greenhouse gas emissions while in other statements climate change is discussed as a problem of vulnerability. Within these frames, however, there are different perspectives about responsibility for the problem.

##### **Climate change as a problem of greenhouse gas emissions**

Climate change is considered as a problem of greenhouse gas emissions from the point of view of responsibility in the statements of the developed countries and most countries with economies in transition, that is Annex I parties, as well as in the statement of China. Climate change is seen as a treatable problem, which can be managed. Climate change is mostly discussed from a global perspective; it is seen as a shared, global problem with global impacts. Typical of this frame is also the role of technology in dealing with the problem; new environmentally friendlier technologies are considered as the solution to emission reductions. Some statements also discuss a more profound change as a solution – disconnecting emissions from economic growth in general with the development of societies towards a path similar to ecological modernisation; economic growth without environmental harms with the help of technology. Market mechanisms and the flexible mechanisms of the Kyoto Protocol are expected to deliver these changes. Economic discourse plays an important role in the statements, too. The premises in the claims concerning responsibility refer largely to economic motives such as lower costs, creating jobs, producing economic growth, etc. Economic reasoning in climate change activities is common; for instance, not acting against climate change is seen to be more

expensive than acting. Furthermore, climate change measures or environmentally friendlier activities are seen as compatible with economic growth or they are even considered to generate economic growth.

Typical of this frame is reality-based premises underlying the claims. The most common of these premises refer to factual issues (obviousness and scientific results) and to economic motives (lower costs, signal to markets). Characteristic is also justifying claims with metaphors such as journey (Kyoto first step, path to further reductions, move forward, etc.), which describes current commitments as only the beginning and that much more needs to be done. In addition, the metaphors of war (battle against climate change, combating climate change, etc.) and world (world needs, world expects, world action, etc.), which construct climate change as a problem that is global and common to all and create unity among nations, are typical features. Commonly used dissociative techniques suggest that the current commitments from the developed countries alone are not enough to address climate change or that there is no conflict between growth and environmental protection or that climate change is both a challenge and an opportunity.

The argumentation concerning responsibility within this frame is future oriented. There is, however, disagreement in two issues: 1) what is the relation of economy and climate change activities, and 2) how to share the burden of mitigation. In the first question there are two alliances that both highlight economic aspects and speak in favour of economic development, but dissent in whether climate change is compatible with the objective of economic growth. The USA, Australia and China claim that activities to combat climate change should enhance economic development. By saying this they reserve the option to withdraw from negotiations that deal with activities that they see harmful or neutral to their economy. On the other hand Canada, Japan and a group of European countries emphasise that climate change is compatible with economic growth, and that the economy may actually benefit from reacting to climate change. By claiming this, these countries try to nullify the argumentation of those not willing to participate in climate change activities on the grounds of economic reasons. As a consequence, the values and the moral responsibility within this frame refer to development, especially to the economic development of societies. Either countries' economic development cannot be endangered due to climate policies or economic development and addressing climate change are realised together. In the second question about the burden-sharing of future mitigation there are three distinctive groups. Canada, Japan and a group of European countries claim that the developed countries are mostly responsible for mitigation but the developing countries also need to participate increasingly; the current mitigation responsibilities of the developed countries is not enough. Russia, New Zealand and some European countries see also that mitigation is a global responsibility but that countries should contribute the best they can according to their capabilities and amount of current emissions. In consequence, most of the statements refer to global mitigation, or at least more global than currently. While developed countries have the main

responsibility, developing countries, especially the emerging ones with more capabilities and emissions, also need to participate increasingly. Besides the aforementioned argumentation, there are also individual claims concerning the distribution of responsibility; those of China, USA and Australia. China demands that states should honour the basic principles of the UNFCCC, especially that of common but differentiated responsibilities, which China sees to be reflected well in the Kyoto Protocol. In contrast, the statements of the USA and Australia do not consider responsibilities under the Kyoto Protocol. Australia calls for a framework that enables effective action from all major emitting countries while the USA relies on voluntary action by partnerships between all countries.

### **Climate change as a problem of vulnerability**

Climate change is also discussed from another perspective: in the statements of most developing countries it is framed as a problem of vulnerability from the point of view of responsibility. Whereas the global aspects were highlighted in the first frame, this frame does the opposite by discussing climate change from a local perspective. Thus the statements emphasise environmental, social and economic impacts to their countries or to developing countries in general by describing local climatic hazards amply. Focusing on the social and economic development endeavours and challenges is also common within this frame. Climate change is described as a threat to the social and economic development efforts of the developing countries because of their low capacities required to anticipate, react or to adapt to the impacts. Furthermore, climate change is considered to reduce even more their scarce resources and thus hinder poverty eradication and solving other major problems the developing world is facing. Attaining the Millennium Development Goals is also regarded as difficult due to the additional burden of climate change. The premises of argumentation also highlight these aspects by referring to the development of developing countries (Millennium Development Goals, sustainable development, poverty eradication, etc.). In addition, the premises include issues such as vulnerability, low adaptive capacities and specific circumstances of the developing countries. Another characteristic feature is that financial and technological resources are considered as the means to solve the problem, to strengthen the capabilities of developing countries and thus reduce their vulnerability. Consequently, financial aid and transfer of technology are emphasised, and the statements call for assistance from the developed countries. Regardless of this, many states describe themselves as active in developing climate change measures. Adaptation to climate change is also seen as essential.

Characteristic of this frame is that the premises in the claims are preference-based. Most of these premises refer to vulnerability, low adaptive capacities, and specific circumstances or adaptation needs of the developing countries. The most common reality-based premises can be summarised as development, including poverty eradication, Millennium Development Goals and

sustainable development. It is also typical to justify claims by referring to some Article of the Convention or the Kyoto Protocol as well as by using dissociative techniques implying that the Annex 1 countries are not really meeting their emission reduction commitments or their promises of technical and financial assistance.

The argumentation concerning responsibility within this frame is mostly future oriented but also discuss past and current responsibilities. The states seem to agree on some questions: there is a quite general tone noticeable in the statements handing the main responsibility over to the developed countries. Also the idea that the developed countries have not assumed their responsibilities in giving resources nor in emissions reductions is shared in the statements. There is, however, different kinds of emphasis and diverse perspectives on two issues: 1) how to support the development of developing countries, and 2) how to share the burden of mitigation. There are two ideas about what to do with the first question. On the one hand, many countries call for environmentally friendly technologies and financial resources to be made available for the developing countries. Some OPEC-countries, on the other hand, see that using fossil fuels should be continued with the help of carbon capture and storage because the development prospects of OPEC-countries suffer from selective climate policies. Both views involve the developed countries: it is them who should give resources or reduce emissions in different ways. Regarding the second question about the burden-sharing of future mitigation there are three distinctive suggestions. A group of G-77 countries, a number of which are also least developed countries, see that while more efforts are needed from all, binding emission reductions are acceptable only from Annex I countries. Other G-77 countries, on the other hand, distribute responsibility on the basis of common but differentiated responsibilities, amount of emissions, capabilities and resources. A few states consider that developing countries can have the possibility of taking voluntary commitments if it supports sustainable development and does not limit their economic and social development. .

## **5. Discussion**

The assumption of this research was that climate change is essentially considered as an environmental problem and that this aspect would be visible in the research data. However, the statements highlighted other aspects much more; climate change was described as an economic or as a developmental problem of current human beings. The role of environment both in the statements in general and as justification was minor. Climate change was also discussed very distinctively and framed as a problem in two very different ways. In addition, the premises of argumentation differ clearly between these two frames. However, it is interesting that although the perspectives and justifications of these frames were very different, the claims concerning the distribution of responsibility themselves were somewhat alike. There were also other similarities between the two frames. First, both considered technology to be the answer to the problem.

Secondly, climate change was seen as a problem that the existing politics and structures are able to manage; only one statement questioned the purpose of economic growth and current development. Climate change was thus not seen as a symptom of something bigger which would need structural, value and life-style changes. What was missing in the statements were the concrete targets and objectives. Furthermore, except for EU members, countries do not consider a specific time-frame in which climate change should be addressed; the EU countries discuss a 2 Degrees Celsius limit to warming but do not address the impacts this amount of warming would have on different regions and the environment. From the perspective of environmental justice it is peculiar that historical responsibility does not get more room as a justification of developing countries. In addition, only some statements demanded emission reductions of the USA and Australia within both of these frames. It is also noteworthy that the rights of future generations were not considered more and their role as justification was quite small. Furthermore, the environment itself and animal and plant species – or even the environment as natural resources – was largely absent, and it would be interesting to examine its position in climate change negotiations more. In the future there is also a need to transcend the developed-developing country divisions, which I had to use in this research, and instead describe international climate politics with the help of fresh and more meaningful groupings.

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