

Communication

# Nature Is for Trees, Culture Is for Humans: A Critical Reading of the IPCC Report

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**Abstract:** In this article, we problematize conventional views regarding culture presented in the assessment report entitled *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. This report is a contribution to the Fifth Assessment Report produced by the Intergovernmental Panel on Climate Change (IPCC). We posit that when culture is seen as a stable category and imagined as a space composed of humans—and, more precisely, only certain humans—an epistemological, ontological, and ethical order is reproduced in which (a) nature is framed as a passive and apolitical “out there”, (b) knowledge based on this division is misleading and partial (e.g., social scientists study culture and natural scientists study nature), and (c) dominant humanist assumptions become common-sense explanations for inequalities. We conduct a critical discourse analysis of the IPCC report to better understand which assumptions produce the conceptualization of culture as a stable category. In our conclusion, we offer an example of a semiotic-meaning intervention of a section of the report to demonstrate the vitality of the concepts presented in this document. Subsequently, we discuss the consequences of omitting the vital traffic between the biological, social, and cultural realms from discussions on climate change to reexamine the production and reproduction of inequalities.

**Keywords:** IPCC; critical discourse analysis; normative ideas of culture; separation; inequalities



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## 1. Introduction

Issues such as biodiversity, the climate crisis, the increase in nationalism and populist politics, the current worldwide public health crisis, and popular acceptance of inequality have all intensified anxieties surrounding the uncertainty and instability of what societies used to know. Therefore, it is necessary to reconsider the kind of knowledge needed to transform the present and refigure the future. It is in this context that we focus our attention on the *Climate Change 2014: Impacts, Adaptation, and Vulnerability* report issued by the Intergovernmental Panel on Climate Change (IPCC). Reports issued by the IPCC play an important role in the political and technical decision-making chain, and their impact on public opinion has grown as their conclusions regarding climate change have become more categorical.

We locate our interest at the intersection of scientific conclusions and policymaking because this transference of knowledge (between science and policy) has a significant impact on how societies react to climate change and how inequalities are perpetuated. Environmental science and policymaking articulations are relevant because if science is imagined as a rational and unbiased activity that exists separate from social and political influences [1], then policymaking can be considered a technical activity that uses particular data to produce policies. We posit that environmental science and policymaking are both activities that reflect social values, and as such, are always political.

This observation is particularly relevant today because, as we demonstrate in this paper, the ways in which societies normalize, neutralize, and stabilize concepts such as culture perpetuate a framing of the natural and social worlds as separate. For this paper, we analyzed the *Climate Change 2014: Impacts, Adaptation, and Vulnerability* report [2] because we are interested in how the concept of culture, which underpins the concepts of vulnerability, impact, and adaptation, has gone unchallenged in this report. In contrast to other documents produced by IPCC experts, this report is framed using concepts that reflect a more subjective approach to understanding the climate crisis; therefore, we decided that this report was the document most suited for analysis. As decades of studies have demonstrated, vulnerability, impact, and adaptation [3–10] have emerged as the dominant frameworks used to guide the activities of international and local agencies, governments, and social movements by including humans among the list of things that need to be transformed to tackle the climate crisis. We postulate that a critical reading of this report will offer insights into how to address the upcoming IPCC assessment scheduled for 2022. This analysis will also allow us to identify the conceptual twists related to adaptation, mitigation, and vulnerability that might advance future conversations. We demonstrate how particular ways of conceptualizing culture, which are embedded in the imperatives of impact, adaptation, and vulnerability, have consequences for the ways scientists might imagine the future. We speculate as to how culture relates to processes of adaptation, vulnerability, and impact in this report, and we explain why it is important to critically examine common assumptions regarding the relationship between nature (or environment) and cultures (humans).

## 2. Problem

This article problematizes the conventional views on culture presented in the contribution of the Working Group II to the IPCC's Fifth Assessment Report (when we name "the report", we refer to the apparatus that not only condenses and organizes, but also stabilizes ontologies and epistemologies produced by competing disciplines, scientists and policymakers. Thus, when we say, "the report says, talks, opens . . . ", we conceptualize the report as the result of political and theoretical agreements about contradictory concepts, such as culture, which are later presented as non-problematic. Here, we want to acknowledge the processes of negotiation behind this report. Nonetheless, we focus on the report as the apparatus that, in order to present itself as an authority, must nullify these onto-epistemological differences), titled *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. We chose this document for analysis because, pending publication of the sixth report in 2022, it is the most recent assessment report. In addition, it has the role of a public authority to specifically assess and communicate the impacts of climate change on human beings and their diverse societies, cultures, and settlements on both a global and regional scale [11]. We are interested in how this report defines "the risks associated with climate change as linked to each additional unit of atmospheric greenhouse gas concentrations, rather than the social and economic conditions that create vulnerability to those gases" [1,12]. This disconnection made between physical and sociocultural aspects when conceptualizing the climate crisis is critical to our analysis.

During the last decade, several studies have critically examined the IPCC reports. These studies have questioned the poor communicability and readability [13,14] of the reports. Indeed, this shortcoming has yet to be remedied despite numerous IPCC attempts to adjust its communications policy [15]. These studies also critically analyze the discursive strategies used in the reports and the political positions and objectives that they convey and reproduce [16–18]. These studies emphasize the importance of analyzing IPCC reports to understand their critical role in the production of global knowledge on climate change [16,17,19–21].

For instance, Verbruggen and Laes [18] argue that sustainability assessments in IPCC reports are constructed to offer policy suggestions that do not conflict with previous commitments adopted by the IPCC. For example, in the case of nuclear power assessments,

IPCC reports have avoided evaluating different views on the role of nuclear power in a low-carbon energy future; they also have omitted most of the literature that is critical of nuclear power. Similarly, Ford et al. [17] assert that the IPCC facilitates interactions between science, policy, and global politics and encourages discussion of previously underrepresented Indigenous issues. Coverage of these issues is general generally limited. There is little critical engagement with Indigenous knowledge systems, and the historical and contextual complexities of Indigenous experiences are largely overlooked.

In this study, we posit that when culture is seen as a stable category and imagined as a space composed of humans—and, more specifically, only certain humans (the report associates culture with Indigenous communities but no reference is made to corporate cultures)—an epistemological, ontological, and political order is reproduced in which (a) nature is framed as a passive “out there”, while culture is framed as the dimension inhabited by humans; (b) knowledge based on this division is misleading and partial (e.g., social scientists study culture and natural scientists study nature); and (c) dominant humanist assumptions, such as linearity and causality, become common-sense explanations. For example, biological traits explain “high” or “low” cultural performance, and cultural practices justify environmental disasters. In our conclusion, we discuss how to question taken-for-granted notions surrounding culture and the ways in which they generate inequalities.

### 3. Methods

In this article, we present our analysis of the concept of culture as portrayed in *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. The report is 1820 pages long, and its authors represent a variety of academic disciplines and nations.

By employing critical discourse analysis, we examine how and why specific ideas regarding the relationship between nature and culture are stabilized and normalized [22] when the concept of culture is neutralized. This approach induces us to pay attention to assumptions embedded in the uncritical usage of glorified concepts (e.g., culture) and relations (e.g., nature–culture) and their consequences for maintaining unequal structures. To guide our analysis, we prepared a set of questions for the report: How does the report talk about culture? What is left behind and aside when the concept of culture is addressed? When culture is mentioned, what other normative concepts and power relations are activated? Through this analytic approach, we attempt to invert the tendency to stabilize the division between nature and culture to reveal how cultural and social contexts shape the very production of this division.

We specifically analyze the 69 paragraphs of the document where culture is explicitly mentioned. We examine the term “culture” as it is integrated within the relevant paragraphs because its location within these assemblages of meaning provides us with the context necessary to map these semantic entanglements and understand how the concept of culture comes to life. Then, we identify three patterns or dynamic unfoldings [23] that are central to how culture is given meaning in the report. We identified three main relational knots: (1) culture imagined as separate from nature, (2) culture as recognizable kinds of humans, and (3) culture as a way of segmenting knowledge production and the world. While considering these three major relational knots, we discuss their impact on the production of inequalities when the concept of culture is not understood as being in constant relation with nature. Following this, we present our conclusions along with an example of how we annotated the report for analysis.

### 4. The First Relational Knot: Culture Imagined as Separate from Nature

The first relational knot concerns the effects of adopting the dominant conceptualization of culture, an abstract construct that positions humans as standing apart from the natural world. For instance, the report opens with the following definition of culture:

Culture is a contested and highly fluid term that is defined in this chapter as material and non-material symbols that express collective meaning. In all societies culture is

expressed in knowledge, worldviews, beliefs, norms, values, and social relationships (\*) (A note for readers: in order to facilitate the reading of the chosen quotes from the report, we have intentionally replaced the authors' names with (\*)). In this definition culture shapes the relationship of society to environments and is a significant determinant of responses to environmental and other risks and challenges (\*) [2].

Because culture is identified with material and immaterial meanings produced by a collective humanity, the above definition fixes the concept of culture as a stable and monolithic representation of social reality. The symbolic weight of this monolith reproduces the assumption that only humans can create culture. The dominant interpretation of culture, as it pertains to human capacity, clearly defines the boundary between the active (culture) and the passive (nature). We contend that this way of thinking about the relationship between culture and nature is problematic, not only because it neutralizes the political pathways to building a relationship between the two, but also because it essentializes subjects and communities. Consequently, this definition of culture reifies the problematic "us/them" colonial order, defining and controlling those who have been represented as Others in the name of power [24].

Characterizing culture as beliefs, worldviews, social relations, norms, and values relies on an exceptionally anthropocentric and non-relational understanding of reality according to which only humans are considered actively responsible for "having" culture, while nature continues to be represented as a passive entity composed of non-humans, separate and distinct from culture. As such, this definition assumes that culture occurs only where there are humans, denying that it is in fact a complex phenomenon produced also by bacteriological, viral, and chemical forms of nature [25–29]. Therefore, if we accept this definition as it stands, we authorize the differentiation of "society" and "environment" as distinct and stable entities.

To theorize nature and culture as separate allows other enduring systems of differentiation to persist, such as the differentiation between sex and gender. To think of sex as biological and gender as the cultural reading of that biological difference keeps us trapped in an extremely unjust and naturalized system of differentiation. We argue that a useful definition of culture must recognize the constant transition between "the material constituents of a habitat back and forth across the permeable boundaries of the body" [27]. Theorizing culture as a collection of dynamic forces that are constantly shaping the relationships that transform biological, social, and cultural worlds is to think of culture as a permanent epistemological, ontological, affective, and political transfer in the construction of the worlds that both humans and non-humans inhabit.

## 5. The Second Relational Knot: Culture as Recognizable Kinds of Humans

The second relational knot involves the problematic notion of culture as a colonialist tactic for perpetuating an imagining of particular communities. Because the report portrays culture as synonymous with Indigenous people, who are understood as vulnerable, marginalized, and dependent on nature, these communities are, once again, portrayed as Other. By presenting Indigenous communities as dependent on nature, with no acknowledgment that rational, urban communities are also nature-dependent, the document authorizes colonialist imaginings of indigenous communities as wild and savage. For instance, the report states: Indigenous communities are especially vulnerable to climate change because of their strong dependence on the environment for food, culture, and way of life; their political and economic marginalization; the social, health, and poverty disparities; and community locations along exposed ocean, lake, or river shorelines (\*) [2].

Framing culture in this way constructs culture as a political signifier that represents Indigenous communities as vulnerable by valuing them against dominant groups that represent urban, rational, capitalist, carbon culture-oriented Western ideals. This problematically frames climate change as a problem for "vulnerable" people (those who live closer to nature) rather than an effect of power relations (in which unmarked dominant groups are part of the equation). This narrative, which rests on a depiction of vulnerable cultures

as dependent on nature for survival, reproduces problematic, deterministic environmental crisis discourses [30]. Moreover, it justifies (usually under the rubric of progress) the extractivist practices of unmarked dominant groups and obstructs meaningful opportunities for change.

Conversely, when highlighting the agency of Indigenous communities, the report adopts an adaptation framework, reproducing an instrumentalist approach to cultural development. For instance, the report states: There is high agreement that, historically, indigenous peoples have had a high capacity to adapt to variable environmental conditions. This literature also suggests indigenous peoples also have less capacity to cope with rapidly changing socioeconomic conditions and globalization (\*). Documented challenges for indigenous cultures to adapt to colonization and globalization may reflect resilience and the determination of indigenous peoples to maintain cultures and identities. Furthermore, historical legacies affect the way that indigenous populations adapt to modern challenges: anthropological research has documented clear linkages between historical colonization and the way indigenous peoples respond to current climatic changes (\*) [2].

The assumption that certain cultures are closer to nature than others reproduces colonial imaginaries of human/non-human relations in which Indigenous people are caricatured as naturally dependent on nature. Drawing on colonial narratives in this way, the report speaks for Indigenous people, while failing to recognize their continued relevance. In this “damage-centered approach” [31], Indigenous peoples are portrayed as vulnerable subjects that suffer additional hardship due to their close relationship with a fragile environment. Within this imaginary, Indigenous communities are inevitably framed as needing to be resilient and adaptable to natural changes, and they are regarded as the objects of preservation policies.

Consequently, theorizing culture as a particular set of norms and values held by distinctive and recognizable kinds of humans facilitates contemporary eugenic discourses, condoning the marginalization of groups with no acknowledgement of why they have been marginalized. Thus, the report recreates racist and colonialist ways of framing human and non-human relations, despite the report’s intentions to overcome these inequalities.

## **6. The Third Relational Knot: Segmenting Knowledge Production | Producing the Division between Scientific and Indigenous Knowledge**

The third relational knot involves the ways culture—as a neutral, a priori, and apolitical condition to producing the social—leads to understanding knowledge as segmented fragments. In addressing the climate crisis, this segmentation amounts to the dichotomy between scientific and Indigenous knowledge. This bifurcation of knowledge overlooks the logical contributions made by economic production, capitalist cultures, and dominant neoliberal values to the climate crisis. In other words, while these economic values are presented as inevitable artifacts of human progress, Indigenous community practices are instrumentalized under the label of “ancestral knowledge” to make them amenable to adaptation. To exemplify this point, consider the following excerpt from the report: There has been significant new research from psychology, anthropology, sociology, and human geography in the period since AR4 [i.e., the Fourth Assessment Report] on the lived experience of weather extremes and observed climate change, driven in part by observed warming trends in regions. This body of knowledge from across social science disciplines argues that climate change is embedded in and acts on culture in myriad ways. For example, all consumption patterns are culturally embedded and therefore culture influences greenhouse gas emissions. The phenomenon of climate change itself is perceived differently depending on the culture in which it is viewed, with scientific expression representing only one possibility (\*). Similarly, there are widely different cultural expressions of weather, risk, and the need for adaptation to such hazards (\*). Therefore, since climate change has consequences for people, this emerging body of knowledge shows with high confidence that climate change has significant cultural implications (\*) [2].

Culture, as patterns of collective and intelligible human behavior, appears in the above passage as a problem, either because of certain groups’ contributions to carbon emissions

via consumption, or because perceptions of risk and the need to adapt to climate change are seen as cultural issues. As such, the locus of culture [32] is described as individual people's actions rather than those of industries and markets, giving the false impression that industrial production and capitalism are not cultural. The depoliticization of the term "culture" allows for the continued reporting of the impacts and consequences of climate change as affecting only certain groups, communities, and Indigenous nations.

To divide knowledge between "scientific" and "Indigenous" knowledge is to divide the world, and this division has critical implications for the ways we think about future solutions. For instance, research on adaptation and the scientific understanding of the various processes and determinants of adaptive capacity is also mandatory for the region, with particular emphasis on increasing adaptation capacity involving the traditional knowledge of ancestral cultures and how this knowledge is transmitted. Linking indigenous knowledge with scientific knowledge is important [...] Although some adaptation processes have been initiated in recent years dealing with this and other indigenous knowledge, there is only very limited scientific literature discussing these subjects so far [2].

In this passage, the linking of scientific knowledge with traditional, ancestral, and Indigenous knowledge is presented as contributing to the strengthening of these groups' adaptive capacities. Contrary to what we noted before, when it comes to the effects of climate change, the term "culture" acquires a high level of specificity in which ancestral, traditional, and Indigenous knowledge becomes useful and available for adaptation.

We stress that the differences between scientific and Indigenous knowledge as presented in the report are based on unmarked power relationships [33]. This means that it is scientific knowledge that authorizes the use of cultural–Indigenous knowledge to design adaptation policies aimed at helping those very same groups to whom the knowledge belongs.

As a consequence, knowledge practices produced in Indigenous groups are presented as intimate and taking place in a completely different realm from Western scientific cultures. As such, Indigenous peoples' knowledge is portrayed as naturally tied to sustainable development practices. Even though this situation creates opportunities for Indigenous people to protect and promote their own knowledge, it also creates space for scientific authorities to develop cultural appropriation practices. Here, Indigenous knowledge is politically neutralized through its incorporation into existing environmental management structures [34], which leads to its simplification and instrumentalization. Finally, the strict binary division between Indigenous and non-Indigenous knowledge used in the report renders invisible the multiplicity of epistemologies and ontologies [33] that are available to imagine new responses to climate crises.

## 7. Annotations

When considering the multiple crises we face today, it is important to revisit the ways in which we understand nature and culture as two distinct realms as well as how this division supports the persistence of social inequalities. As we have demonstrated, it is important to interrogate the apparent neutrality of official documents such as the IPCC report because they communicate only a partial representation of reality (in this case, culture as a stable realm that is separate from nature) using data that are later turned into truth for policymakers. If it is true that an understanding of nature as distinct from culture informs and justifies extractivist cultures and racist and sexist systems of differentiation, then analyzing these reports is key to exploring the limits of current biological, social, and cultural knowledges.

To provide an example on how neutral understandings and assumptions about culture are uncritically presented in this report, we share an example of our analytic reading of the text. As we mentioned above, we used complete paragraphs to analyze the operations and workings of the notion of culture in relation to other concepts. Below is an annotated quote from the report in which we demonstrate our interventions in the text. These interventions are written in capital letters to visualize how we question what is embedded in the text.

*There is agreement (BETWEEN WHO?) that culture—or the shaping social norms, values, and rules including those related to ethnicity, class, gender, health, age, social status, cast[e], [sic] and hierarchy—is of crucial importance for adaptive capacity as a positive attribute but also as a barrier to successful local adaptation [ . . . ] further research (WHAT KIND OF RESEARCH? ANY RESEARCH?) is required in this field, not least because culture is highly heterogeneous (AS HETEROGENEOUS AS RESEARCH PRACTICES AND POLICY PERSPECTIVES ARE) within a society or locality (\*). (NORMATIVE) Studies (OF CULTURE) show that, while it is important to develop further the evidence base for the effectiveness of traditional knowledge (TO BE EFFECTIVE PLEASE INCLUDE: NEOLIBERAL, CORPORATE, AND EXTRACTIVIST CULTURAL KNOWLEDGE), integrating cultural components such as stories, myths, and oral history (PLEASE INCLUDE CONTEMPORARY VERSIONS OF WHAT IS A CULTURAL COMPONENT: CHEMICAL, SPATIAL, THERMAL, VIRAL, BACTERIOLOGICAL, NUTRITIVE, AND SO ON) into initiatives to document local and traditional knowledge on adaptive or coping mechanisms is a key to better understanding how climate vulnerability and adaptation are framed and experienced (\*). Appropriate and equitable (EQUITABLE AS A LIBERAL CONCEPT WITH NO REFERENCE TO ISSUES OF POWER) processes of participation and communication between scientists (LAB SCIENTISTS, WHITE, HETEROSEXUAL, WESTERNIZED) and local people (IMAGINED AS NAKED PEOPLE LIVING IN THE FOREST, CRAFTSMEN, MONKS, FISHING COMMUNITIES?), have been found to prevent misuse or misappropriation of local and scientific knowledge (\*). (p. 1232)*

We conclude with two main points derived from the interrogation of the above quote:

First, we want to highlight the ways in which disciplinary knowledge informs the report's complicity in maintaining and justifying the nature/culture distinction through its apolitical usage of the concept of culture. Our concern is that this nature/culture binary not only rests on a set of philosophical assumptions and beliefs that inform research questions, hypotheses, methods chosen to prove those hypotheses, and decisions about what should count as evidence, but also organizes a set of economic, social, cultural, and affective practices that translate into specific rewards and privileges for particular groups. We are particularly interested in how these groups remain unmarked [35] throughout the document, justifying the assertion of "neutral" scientific claims. That is, when relevant and necessary analytical tools involving capitalism, colonialism, classism, and genderism are nonexistent in the report, readers may assume that the document chooses neutral conceptualizations of communities (e.g., Indigenous communities), according to which some groups are presented as inferior and others as superior. This omission not only naturalizes the structural roots of unequal power practices, but it also reinforces common-sense knowledge regarding various groups. Restricting the concept of "culture" to Indigenous communities obfuscates the responsibilities of other cultures, such as neoliberal, white, and capitalist cultures, in the examination of issues surrounding inequality and environmental crises.

Second, as the report objectifies nature as an object of study for the natural sciences, it omits the vital traffic between biological, social, and cultural realms from attempts to conceptualize and examine problems and solutions related to climate change. This means that scholars' ways of noticing problems, including the research practices that we deploy to produce data, are deeply misleading, and, therefore, the solutions they generate are partial at best. In this context, collective strategies cannot be effective and, most importantly, will inevitably increase inequalities. Because the IPCC report neutralizes historically documented processes of biological, social, and cultural stratification (genderization, social classification, racialization, ethnification, etc.) as active producers of structures of exploitation, capitalism, rationalist science, and colonialism emerge as radical narratives for analysis and problem solving. This omission haunts the report, which romanticizes proposals for change while locating them in individual actions such as taking short showers, settling in non-dangerous places, recycling, and taking inspiration from Indigenous peoples' lifestyles. These "habits" and practices of understanding climate change (reasons

and solutions) are portrayed as either nature- or culture-based, disallowing more complex approaches, such as Donna Haraway's conception of natureculture, which emphasizes the inseparable relation between nature and culture to explain phenomena. Natureculture enables the interrogation of dualisms and differentiation as critical ways of framing the world [36].

As we have established in this article, the intersection between scientific knowledge and policymaking is worth investigating when trying to understand how environmental inequalities persist despite decades of scientific research and public policies. Our analysis of the IPCC report shows how traditional conceptualizations of culture, which are embedded in research and later translated into documents, keep explanations of inequalities locked in an endless circle. We contend that it is important to analyze these types of documents because they not only inform policymaking but also propagate particular systems of knowledge. Separating these two vital realms in order to explain life—and who we are—has important implications for the identification of opportunities for transformation in the future. One potential solution for this separation is to begin to understand phenomena as an entanglement of the biological, social, and cultural worlds that define human and non-human relations. We suggest that a biosociocultural perspective may help us to imagine the new and vital worlds to come.

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