

Political Epistemology and Insufficient Cognizance of the Truth of Climate Change

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ABSTRACT

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This research is to offer a philosophical examination of climate science knowledge in relation to the justification for the need to address the issue of global warming. This study begins with the observation that there is no universal viewpoint when addressing the implications of climate change. However, researchers in this field suggest that formulating economic and political government policies is essential for facilitating knowledge in recognizing the issue. To establish sustainable cooperation, these policies should encourage the dissemination of knowledge. Nevertheless, the truth about global warming is frequently communicated with insufficient understanding, and in some cases, a lack of awareness, which may prevent individuals from recognizing it as a problem that warrants addressing through a well-integrated, long-term policy. During this investigation, I discovered that these issues are referred to as a narrowing or "trap" that restricts the knowledge of individuals who are not typically climate experts. I then recognized that the issue is associated with the distinction between knowing how global warming policy should be successfully evaluated and knowing that it is a sound phenomenon. The latter is a widely accepted fact, whereas the former is a prediction of the future. This paper argues that when climate science is recognized as having the special characteristics of a consensual truth, the connections between the two, despite their apparent differences, are not so significant as to restrict the public's understanding of climate change to individuals who are not experts.

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Introduction

The issue of climate change awareness can be considered in the epistemological dimension of climate science, whereas policy management to address global warming and citizen education to raise awareness and cooperation in solving the problem can be considered social and political issues. The importance of this topic is the dimension of the interaction between climate change knowledge and the atmosphere in policy management, as well as how philosophy may provide advice for establishing such a relationship.

The literature related to epistemology that considers the issue of climate change is increasing. Most scholars share the same opinion about the relationship between epistemology and climate science, namely that in the matter of knowledge and awareness of the climate change problem, it is imperative to educate people. Such knowledge is that which helps to raise awareness of the urgency of mitigating the severity of the causes of global warming, or which is currently the subject of campaigns made more serious by using the term 'global heating'. Some research on this issue has found that such awareness is more common among younger generations (Calculli et al., 2021, Article ID: 129244). Other research focuses on campaigns to raise awareness that the problems mentioned are not fabricated or based on false information; instead, they are evaluated based on the consideration that the overall condition of life can still be lived without suffering (Bateman & Jackson, 2024). The issue of providing knowledge involves issues of political science and international politics. This is the origin of this research into political epistemology, a new approach that links the theory of knowledge to the influence of politics, which plays a crucial role in determining what is true and what is accepted by humanity, and in using this to identify false or fabricated information for international political or economic gain that surreptitiously benefits a particular group of people (Hannon & Edenberg, 2025, pp. 486-488).

The initial survey identifies several recent studies that highlight the importance of building partnerships around sustainable development, with a focus on issues of education and knowledge dissemination. Research work that has applied the philosophy of knowledge, or epistemology, to examine environmental issues in Australia includes a study which explores the importance of "knowledge systems" in relation to natural resource management. A key finding from the research is that natural resource management practitioners recognize that they are addressing climate change issues. These practitioners also recognize that their work will have a significant impact on knowledge dissemination, particularly in preventing the long-term effects of climate damage. However, having their knowledge generated through top-down government policies that do not allow them to have an informed and critical voice is not beneficial to the work they are doing. Therefore, greater emphasis is urgently needed on accumulating their knowledge and the

opportunity to co-design research with government environmental policy research agencies (Wallis et al., 2017, pp. 48-49).

The latest research in the field of local phenomenological epistemology. It highlights the concept of embodiment and sensation as inherent to the human body and the perception of climate that humans experience in their daily lives. The location of interest of the researchers is Rotterdam, the Netherlands. The research is based on the perception of the consequences of climate change. The reality of such perception through the body of perception has been termed "climatic care practices," which gives prominence to the knowledge gained from the reality of daily life through the perception of climate. The researchers see such knowledge as having a positive impact on the development of appropriate policies (Oorschot & Balen, 2024, pp. 1085-1087).

Some of the recent research mentioned above prompts me to consider an interesting research issue: the urgency of climate change, which warrants education for citizens worldwide. However, such developments rely on education that often depends on the political and economic paradigms of each country. Therefore, it would be interesting to critically examine how the development of education on this issue is influenced by political culture, and how the epistemic gap between the public and experts in climate science exists. However, it is widely understood that climate science is not a science with comprehensive knowledge, but rather one with insufficient cognition of that knowledge. In such a case, social and political measures aimed at raising public awareness through education would have to differ. This aim is what this philosophical inquiry seeks to investigate and argue for, implying that such features are unavoidable.

Research Questions

1. What are the philosophical issues of resolving international disagreements about the truth of climate change?
2. What are the philosophical and political characteristics of appropriate long-term policies for raising human awareness of climate change?
3. How can climate science illustrate the degree of awareness between experts and lay people, given the perceived inability to be universally understood and to provide comprehensive forecasts?

Objectives

1. To analyze the relationship between issues of knowledge in climate science and political power.
2. To analyze issues in political epistemology related to disagreements on climate change.
3. To propose a new epistemological critique that makes knowledge about climate issues of epistemic consensus between the public and the experts.

Literature Reviews

Goal 4, Section 4.7, of the United Nations General Assembly's 2030 Agenda for Sustainable Development, states that "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development" (UN General Assembly, 2015, p. 17). Furthermore, according to Section 31 of the same agenda, the United Nations Framework Convention on Climate Change is acknowledged as the primary international, intergovernmental arena for climate change negotiations. It is acknowledged that the world must address climate change and environmental degradation. Furthermore, climate change necessitates international cooperation to accelerate reductions in greenhouse gas emissions (UN General Assembly, 2015, pp. 8-9). The policy outlined in the United Nations declaration, as previously mentioned, firmly illustrates the correlation between the necessity of increased education on climate change and the necessity of increased international collaboration to address it. Therefore, the consideration of the issue of knowledge in conjunction with international political influence to create cooperation in the recognition of that knowledge is interrelated.

While the United Nations was developing a policy on education and addressing climate change, which was later announced as part of the Sustainable Development Goals, a body of philosophical research examined the interconnectedness of these issues. One particularly important work that deals with the issue of epistemology in climate science is Hulme's writing entitled 'Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity.'

Hulme (2009, pp. 1-34) provides a sharp analysis of the problem of disagreement about what exactly is a problem with climate change, which inevitably leads to further disagreement about how governments around the world can cooperate in policy-making on the issue. Why is

climate change an urgent problem that needs to be taken seriously? He answers that the problem starts with the diverse ways in which cultures understand climate. It is found that scholars studying sociology, anthropology, and political science together in discussions of climate change have highlighted the power of specific knowledge. That is, the voices of environmental scientists, both physical and biological, are more credible in the eyes of politicians and state environmental policy-makers. This credibility has made the language of science sound like the bible of all the answers to environmental and climate change problems. The voices of sociologists and anthropologists who have researched local climate knowledge have been silenced and disparaged as local knowledge of climate, which cannot be considered genuine knowledge. What has happened is that the valuation and assessment of knowledge have the characteristics of valorizing certain knowledge discourses while suppressing and devaluing other discourses. These are the primary sources of disagreement in countries worldwide that endorse scientific discourse to varying degrees. The communication of science to the public is often one-way, often filled with scientific jargon that some cultures find distant and incompletely understandable. This gap results in a lack of awareness and urgency regarding the issue of climate change. However, given the potential advantages of allowing climate change to be the basis for a pluralistic expression of knowledge from multiple perspectives, local knowledge should be allowed to emerge. Such considerations mean that the voices of climate and environmental scientists, which have always been believed to be the proper knowledge, should be reconsidered as a kind of narrative. Such knowledge pluralism begins by examining how different civilizations and cultures in various parts of the world have approached the geopolitical issue of climate, resulting in diverse understandings of climate change. Therefore, the benefits of embracing knowledge pluralism will lead to cooperation that begins with communication and understanding. Here I would like to offer a direct quotation from Hulme, which I think reflects his hope for such a collective understanding:

The idea of climate change should be used to rethink and renegotiate our broader social goals about how and why we live on this planet. We need to harness climate change to give new expression to some of the irreducible and intrinsic human values that are too easily crowded out – our desires for personal growth and self-determination, for creative experimentation, for relationship and for community. In this way, climate change can be assimilated into our future. If we harness the full array of human sciences, artistic and spiritual endeavors, and our civic and political pursuits, we can reconcile climate change with our human and social evolution, with our instinct for justice and with our endurance on this planet. (Hulme, 2009, pp. 361-362)

These remarks illustrate well my analysis that eliminating the disagreements across societies and cultures around the world in their understanding of climate change cannot be accomplished by promoting a single intellectual discourse as dominant in human understanding. Resolving disagreements requires, instead, encouraging them to be made public and allowing people to learn about their differences for further discussion.

Philip Kitcher's influential work entitled 'The Climate Change Debates' identifies the locus of contention in policymaking for climate science. Which of these conjectures is accurate? Climate scientists possess substantial expertise in analyzing the effects of climate change and have diligently attempted to convey the issue to governments worldwide; nevertheless, their perspectives are not being taken seriously or authentically. In other words, the perspectives of policy experts who convey their ideas to governments globally are founded on the premise of insufficient understanding of climate science across cultures, resulting in communication challenges. Kitcher identifies the issue of policy communication as being based on at least three intrinsic human skepticisms. The outstanding issues are (1) whether people are the primary catalyst of climate change, (2) whether the catastrophic consequences of climate change will manifest, and (3) whether the assertion that prompt intervention will undoubtedly lessen the severity of the change is accurate. Kitcher identifies a more fundamental inquiry regarding the truth of the impacts of climate change. If it is acknowledged that such a truth will manifest itself and prevail, then today's action or inaction will not contradict the singular truth that will triumph for humanity. This fact constitutes the veracity of the response to the third and most critical inquiry above, specifically the assertion that human efforts to reduce the disastrous effects of climate change are inconsequential. In simple terms, it suggests that if the outcomes are inevitable, any alterations made today are pointless; conversely, if the outcomes are not forthcoming, then any changes made today are inconsequential. Kitcher consequently finds it unremarkable that the discussion continues. Governments globally, constrained by limited timelines for researching the effects of climate change, could make strategic decisions that do not ensure success. Consequently, communication strategies regarding climate change that rely on ambiguous predictions tend to be ineffective. He agrees with certain aspects of Hulme's perspective, asserting that the establishment of a collaborative climate information base might alleviate some conflict-related issues. (Kitcher, 2010, pp. 1230-1234).

Since the official announcement of the Sustainable Development Goals, there has been considerable philosophical research by scholars that has highlighted the problem of climate science skepticism. Alex Worsnip's article entitled 'The Skeptic and the Climate Change Skeptic' presents an argument that the skepticism about climate change is strong, especially from the

perspective of hard skeptics. He points out that the same skeptical arguments about the existence of an external world can be compared with the skeptical arguments about the impacts of climate change. The parallelism lies in the fact that those who think in extreme ways and who doubt the existence of an external world will not see any compelling reason to accept that the external world is as real as the sensory data report. The phenomenon causes a discrepancy, as the sensory systems reporting such data are questioned according to the skeptical mindset. However, he sees the way in which we express skepticism about the truth of the climate catastrophe is partly consistent with skepticism about the external world. That is consistent in the sense that such doubts often arise in the manner of conspirators who try to disprove why the external world does not exist, and this is also found in those who try without any basis to disprove the findings of climate scientists (Worsnip, 2021, pp. 469-479).

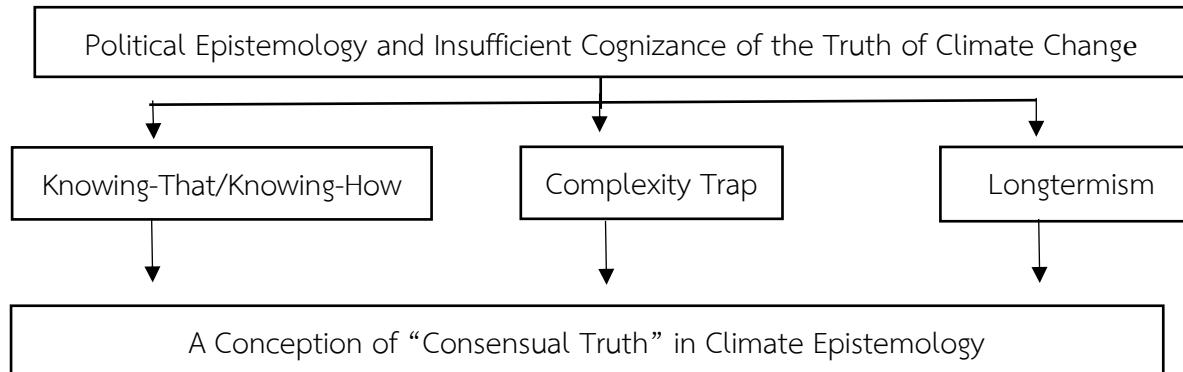
In an article entitled 'Deep Disagreements and Political Polarization,' it is argued differently from many scholars who believe in a democratic system that allows for the expression of different opinions. Such democratic liberalism can be seen as the source of what are called deep disagreements that eventually lead to political polarization. This disagreement makes it even more challenging to solve the problem of climate change. Why is it so? The reason is that the exercise of free speech is based on the premise that the wisdom obtained from the masses is diverse and has the advantage of looking at problems from all sides. It is also suitable for promoting a democratic society that respects the basis of reasoned opinions. However, these opinions may not have sufficient scientific support, and they become the opinions of one group of people who agree with one line of reasoning, while another group disagrees. The persistence of such disagreements and the difficulty in reaching a consensus easily lead to ideological polarization. Of course, the problem that follows is that if these ideological poles lead to political polarization and power struggles, such conflicting views will become even more intense (Ridder, 2021, pp. 226-231). This view has been reinforced by an article entitled 'Political Disagreement, Arrogance, and the Pursuit of Truth.' It is pointed out that two factors contribute to what he calls cognitive polarization. These two factors are epistemological disagreement and intellectual arrogance. These are not conducive to the human search for knowledge on any issue, as they create additional political obstacles to collaborative knowledge seeking (Lynch, 2021, pp. 244-258).

Research Methods

Philosophical argumentation is the term used to describe a research methodology that is applied in philosophical studies. This methodology evaluates the validity of the argumentation of prior research that is the subject of the study. This methodology also results in a research design

that is distinctive to philosophical studies. This research will introduce the argumentation approach in political epistemology, which addresses the issue of educating the public about climate change, yet still identifies a significant gap between the public's knowledge and that of experts. Nevertheless, I will identify a more robust line of reasoning that posits that such a significant gap is not a comprehensively accurate understanding.

Conceptual Framework



Research Results

This section will present the results of my review of the research on the link between political epistemology and the search for truth about climate change. From a selective reading of the relevant research, three key issues emerge: (1) the nature of multi-modal knowledge; (2) the identification of the complexity of knowledge in climate science as a trap; and (3) the view that the relationship between citizen education and government policymaking should be long-term.

Epistemological differences between knowing-how and knowing-that

In addressing the question of the nature of knowledge itself, knowledge in climate science is also addressed. It is pointed out that focusing on the epistemological issue of the distinction between "knowing" and "knowledge" is necessary to make the debate about the existence of knowledge in climate science clear. They also refer to the distinction between "knowing-that" and "knowing-how" as different philosophical concepts (Wallis et. al., 2017, p. 43). Some research has analyzed the differences between the two concepts. It is explained that the universalism of scientific knowledge, as commonly believed, assumes that all types of knowledge can be

answered in the same universal way. The universal knowledge paradigm sometimes leads to the belief that the study of weather or climate is a coherent scientific paradigm. However, the view from the cultural studies approach, which examines different local wisdoms, is more accurate in that the nature of knowledge, as understood by humans, is distinct (Rosengren, 2018, p. 611). Some research also points out that the knowledge paradigms in each academic discipline show an acceptance of these differences, expressed in different terms to avoid confusion; for example, the use of different terms for knowledge as *epistêmê* (knowing-that) and as *technê* (knowing-how) (Bengson, 2013, pp. 518-520).

However, where does the distinction come from? According to the study, references to such sources often trace back to Ryle's (1945) statements. When considering what kind of human intelligence there is, it is found that there are many terms for human cognitive behavior. The intelligence, in terms of thinking, that humans possess can be understood as a state of mind where they think and know their own level of intelligence. On the other hand, some actions or expressions can be called actions of those with intelligence. Therefore, if there were an acceptance from the initial observation, it is the acceptance that intelligence in terms of theoretical thinking and intelligence in terms of expressing it as actions are the same thing. However, this initial acceptance is what will eventually lead to conflict. This acceptance occurs when we can understand that having intelligence in terms of understanding correct knowledge does not necessarily have to be related to expressing actions said to have intelligence. If there is a need to be closely related, it must be pointed out that the expression of action intelligently requires that the person must first have intelligent knowledge. Moreover, that would also mean that people who do not express themselves intelligently do so because they lack the correct knowledge of the matter. This observation is not always true. Therefore, it leads to the conclusion that understanding what is and expressing themselves with skill and knowledge must be considered two different things (Ryle, 1945, pp. 1-16).

Such a distinction was again noted many years later in an article by Smith (1988, pp. 1-16). He saw that although Ryle (1945) had long discussed the nature of the two kinds of knowledge, analytic philosophers had not been able to distinguish the two concepts and give them equal importance clearly. Smith saw Ryle's idea (1945) as being capable of being defined by another set of terms, such as propositional knowledge and practical knowledge. He also said that ancient philosophers or continental philosophers would have been more correct in accepting that the two were different but equally important.

Of course, these differences play a key role in considering the issue of general and expert knowledge in climate science. The key question is whether experts will have more of both types

of knowledge than the public.

Complexity trap

The issue on this topic clearly originates from a research paper entitled 'The Complexity Trap: Skepticism, Denialism and the Political Epistemology of Climate Science.' The researchers highlight the issue of climate scientists being unaware of and failing to understand technical terms that require a proper understanding outside academic circles, as they often do not have the same meaning when used in scientific contexts. When used without proper understanding, they fall into a trap of knowledge creation. The solution is to recognize the existence of these complexity traps and raise awareness among climate scientists. Of course, the question is why it is so important to address the complexity trap. The researchers argue that it was a collective understanding before climate scientists were given the status of experts on climate change. Any policy conference would give scientists the credibility to demonstrate their research. Such confidence extends to the use of terminology in climate science, which is said to be a universal understanding that scientists would assume they have. When anyone comes to learn about it, they must also use the term with the same perception of it as universal. When scientists respond to those who disagree with their explanations of climate science, or denialists, they will see that the denialists are using terms with meanings that do not correspond to the meanings they use. The denialists will inevitably be judged as ignorant, and then such interactions will be counterproductive. This judgment arises because those who reject climate science experts may have some valid arguments that are worth listening to. However, the technical terms that climate scientists already use may lead others to think differently, making them think that climate science is wrong. The complexity of the problem of using terms to communicate the problem of climate change is indeed always present in the discussion of the issue of climate change by various academics. If such complexities cannot be detected, it will only make climate scientists less receptive to the knowledge of others. The consequence is that political expression in the making and implementation of relevant policies will remain with the political group that is currently in power. It is therefore especially important to be aware of such traps. It is expected that such awareness will then lead to greater cooperation in the future (Mauelshagen & Pfeiffer, 2022, pp. 65-83).

For scientists to listen to each other respectfully and learn from other disciplines is one of the key issues that can help solve environmental and climate issues, as well as complex problems in other fields. This mutual listening and respecting each other is a common issue in the field of scientific epistemology, which goes hand in hand with democracy. Some research suggests the interdependence model as a framework for understanding scientific pluralism in a

democratic society (Chokvasin, 2023, Article ID e268392).

Longtermism and political policy

One important reason for considering political paradigms and approaches in the context of disseminating knowledge to citizens, particularly in terms of climate change awareness, is the clear recognition that political policies play a crucial role in such considerations. However, there is one limitation in finding a foundation and concept that is consistent and compatible with the issue of long-term problem-solving strategies and the democratic political system, which is founded on elections, resulting in the formation of short-term governments. Will we see any foundation of ideas that can be combined without creating problems of political injustice?

These have been the subjects of scholars involved in the political science of government policy, as well as philosophers interested in political philosophy, who have come together to find a reason for ideas that are appropriate to such considerations. For example, some policy proposals from Longtermist Institutional Reform present an argument that emphasizes the importance of embedding a long-term policy mindset in government. They highlight the importance of policies such as (1) having a research body that is long-term and independent in the sense that its duration is not tied to the term of a government; (2) supporting an assembly for the future that provides input into policies that are being considered and debated; (3) supporting assessments of the impacts on future generations, such as the possible long-term effects of implementing policies; and (4) supporting a legislative unit where young people who represent the future generation who can voice their opinions alongside adults in policy deliberations (John & MacAskill, 2021, pp. 44-60).

The research paper entitled 'Policymaking for the Long-term Future: Improving Institutional Fit' examines the development of policies suitable for sustainable development that benefit future generations. It is found from the research that there is an urgency for what they call institutional reform. This reform can only happen if there is an understanding that policies should be both actionable and long-term. Therefore, the perception of future generations as having clear representation, the perception of policies that are on the political agenda as having a focus on reducing the impact of catastrophe, and the importance of the general public good that should be shared, all of these things need to happen at the policy level (Stauffer et al., 2021, p.1).

Furthermore, a seminal article entitled 'Climate Change and Political (In)action: An Intergenerational Epistemic Divide?' highlights some of the misconceptions about the epistemic gap and epistemic injustice. The misconception is that there is an epistemic intergenerational divide on climate change. However, the survey found a lack of access to epistemic justice in

accurate climate information for both young and older people. This inaccessibility suggests that expectations of political cooperation across generations may be hampered (Murphy, 2021, pp. 1-2).

Some recent research has also sought to develop a new concept called long-termist political philosophy, which advocates for an "institutional longtermism" in response to climate change. They distinguish between "individual longtermism" and "institutional longtermism." A key difference between the two concepts is that individuals' long-term environmental or democratic values are different from their policy ascriptions. The latter can only be achieved through long-term cooperation that will establish those values. The researchers thus argue that institutional longtermism is essential for addressing climate issues (Schmidt & Barrett, 2025, pp. 465-491).

Discussion

In this discussion, I will point out that the distinctions between knowing-how and knowing-that, with the challenges in communicating knowledge of climate science, may create issues regarding the authority of political power that permits a specific body of knowledge, frequently from a select group of scientists, to be acknowledged and utilized in policymaking. However, climate policymaking necessitates long-term considerations, which should not be founded on epistemological premises that endorse a universal and objective conception of truth by states, scientists, and citizens. Finally, I argue that the construction of such truth should be in the form of consensual truth.

It is now generally understood that behind the importance given to a particular body of knowledge and its prominence over others in the same way lies some political influence. Any knowledge is influenced and shaped by political influences. Many articles have reflected that such a situation would have both negative consequences for the knowledge itself and for the problems that would result in further political crises (Friedman, 2023, pp. 1-2). However, what exactly is true knowledge? Does the truth of knowledge mean that it must be purely composed and free from any influence that interferes with its truth? If so, the existence of political epistemology would be an oxymoron.

However, the academic work discussed here shows that the political context in which policymaking is based on human knowledge inevitably entails some underlying political influence. The discussion of knowledge in climate science and political epistemology, as the subject of this article, is not an argument to confront political influence. Here is another important and interesting question. That is, the question of whether the recent research presented here shows us that there is a certain level of epistemological justice. To be specific, is there a vast gap between the public's

understanding of the truth and that of climate scientists? Is the gap in climate knowledge widening? This widening makes us consider the opportunity to say who has the greater knowledge of making a correct judgment.

What does it mean to make a true judgment in climate science? Common sense suggests that it is a judgment that correctly states the effects of global warming are real. Truth here means that humans are facing the facts that the climate catastrophe is happening right in front of them so seriously that the danger of such a catastrophe is unavoidable. However, facing such a catastrophe, which in the past was predicted to be caused by the destruction of natural resources and the release of pollutants that destroy the atmospheric barriers that protect the earth's climate, how are these events that are believed to be cause and effect related causally? The fact of such causation has long been a part of the models used by climate science experts and is communicated as information to people worldwide. When people have access to such information to a certain extent, they can also understand the models of the causation of climate catastrophe to a certain extent. However, facing the facts of climate catastrophe and understanding that these catastrophes are unfolding according to the knowledge and predictions of experts in climate science are two completely different things. Why do I say that they are different things? The answer is that confronting a climate catastrophe and knowing fully well that there are real causes and effects in the causal process models are separate entities. Separateness here refers to the fact that the international political establishment's cooperation in disseminating information and seeking early policy support is a process of knowledge creation, whereas cooperation to address the various practical issues arising from the catastrophe involves other areas, such as economics, environmental law, and public health. I therefore have a critical view that the academic concern that the quantity and quality of knowledge about the truth of climate science among people around the world, which is not as high as that of climate science experts, will hinder the urgency of climate mitigation, is not closely related to the political problem of creating a silo that limits cooperation to address those problems that have catastrophic effects. In short, the concern that people who do not know as much about climate science as experts will lack awareness of the urgency and the concern over global cooperation is not closely related. In other words, the sustainability of climate science learning and the sustainability of global climate cooperation are separate entities.

Considering all these issues, many researchers in the past have seen that the most appropriate political policies to combat climate change should be long-term. Furthermore, such policies should involve young people, both through awareness-raising and education, as well as through political participation in policymaking, because they are better suited to represent the

next generation. Of course, these strategies will be met with controversy among skeptics and dissenters. A key argument is the knowledge gap that has been acknowledged as a belief that needs no further questioning: it is these adults and more experienced climate science experts, rather than the youth or even the public, who should be the ones providing policy advice to governments. Governments should then consider the appropriate ways in which policy can be moved from the experts who are advisors to the public and youth through education. This argument is based on the idea that experts have more knowledge and expertise in seeing the truth about climate change. They should be respected as having more substantial knowledge of what climate change is, what its impacts are (knowing-that), and how to mitigate them (knowing-how).

However, this epistemic issue of knowledge is where I will present an argument that such beliefs are not always correct. The proposal from the long-termist policy side suggests the opposite: that giving importance to the youth who are about to grow up and fight the problem of climate change should be included in policymaking. I have an analysis that suggests that when considering knowledge about the problem of climate change, it involves knowledge in terms of possibility, specifically the possibility that climate forecasting and preparation for response are areas of knowledge that have a high degree of uncertainty. That uncertainty arises from the fact that the theoretical models used by experts to explain climate still have limitations in accurately predicting results. The knowledge obtained is therefore in the form of theoretical and probabilistic knowledge. Such characteristics make the dividing line between expert knowledge and public knowledge not so clear. Therefore, the argument that the long-termist research paradigm is clearly related to climate science is more important when used to connect with the long-termist political philosophy. In other words, long-termism does not allow for a clear dividing line in human knowledge of who has more expertise than whom, to the point that the responsibility must rest only in the hands of experts.

From the analysis above, humanity is in a state of inadequate understanding, and yet still has insufficient cognizance of the causal mechanisms of global warming and climate change. Experts can explain the climate mechanisms within their respective areas of expertise, which reinforces the overall disunity of knowledge. People who rely on experts listen to the climate catastrophe like children who listen to their elders, because they perceive the experts to know more than they do. However, when top-down policies are implemented to encourage human cooperation on climate change awareness, they are sometimes perceived as coercive or demanding cooperation, and sometimes they fail to demonstrate that any positive outcomes will be achieved quickly.

Cultivating sufficient awareness of climate change is thus a key challenge that shares similarities with the political issue of promoting cooperation. Coercion in the form of a ruler as a lord could result in resistance and non-cooperation. However, when instead cooperation is agreed upon, it is not clear how that cooperation is consistent with the realization of a good life. Thus, the political epistemology of knowledge about climate change is that it must acknowledge the situation of making knowledge about a phenomenon that humanity does not know enough about. It is not that there is an ultimate, definitive answer to climate knowledge, but it is also not that humanity does not know anything about it.

Here, I will use the term "consensual acknowledgment" of the "consensual truth" of climate change. These epistemological conceptions have a political character. That is, while we do not know all the causal and consequential mechanisms of climate change effects, what we do know without a doubt is that policies that coerce people into cooperating with governments simply because they must listen to what experts say will not work. From the data analyzed here, knowledge about climate change is a complex field of discussion, disagreement, and even knowledge about how to deal with those disagreements, and the search for appropriate long-term policies, both educationally and politically, on these issues. Therefore, the fact that humanity does not yet have or see a definitive endpoint for knowledge about climate requires humanity to be humble in order to build global cooperation actively.

Conclusion

The collective understanding that knowledge is associated with certain knowledge content is an understanding that has been subject to much debate in epistemology. Those who argue that knowledge is socially constructed, or who believe in social epistemology, argue that it is the interdependence of human beings in social contexts that plays a greater role in the creation of knowledge. We are neither saying that humans know everything, nor that humans know nothing. The study of social epistemology, on the contrary, makes such statements seem extreme and too ridiculous to be taken seriously. Furthermore, the development of political epistemology has further shown that disagreements about knowledge are also partly politically constructed. Knowledge creation must therefore be viewed through the lens of different contexts, rather than the belief that knowledgeable people are experts who should be given the sole responsibility of creating knowledge and then conveying it to governments to shape relevant policies. The issue of climate change is thus a unique one in that it reminds humans to consider that even the lifespan of experts in a particular period, although long at one point in time, is still shorter than the lifespan of climate knowledge contexts. The transfer of knowledge creation from one

generation to the next has therefore become a matter of consent that could at least accumulate implicit acceptance.

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Biography

Theptawee Chokvasin is an Associate Professor and Researcher in Philosophy, Department of Philosophy and Religion, Faculty of Humanities, Kasetsart University. He is interested in epistemology, political philosophy, and climate ethics.

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