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Agreement, significance, and understandings of historical responsibility in climate change negotiations

Mathias Friman and Mathias Hjerpe

Abstract

For over 20 years, Parties to the UN Framework Convention on Climate Change have struggled with the normative significance of history for the differentiation of responsibilities. Negotiations on ‘historical responsibility’ have been marked by considerable conflict between developed and developing countries. However, in 2010, the Parties acknowledged the concept in a consensus decision. This article analyzes UN Climate Change Conferences delegates’ agreement with the decision, whether it reconciled conflict between interpretations of historical responsibility, and the significance that delegates ascribe to the decision for future agreements. The decision has not eliminated conflict between different interpretations. Delegates who understand historical responsibility as linking countries’ historical contributions to climate change to their responsibilities to act agree more with the decision and foresee its having a stronger influence on future agreements than do those viewing the concept in more conceptual terms. The decision marks the start of negotiations concerning *how* rather than *whether* historical responsibility should guide operative text. This article demonstrates that 1) the divergent interpretations poses clear challenges for a necessary but demanding agreement on operationalization, and 2) focusing on an ambiguous version of proportionality between contribution to change and responsibility can become a first step for convergence between divergent positions.

Keywords: historical responsibility; equity; negotiations; Brazilian proposal; burden sharing; cumulative emissions

Introduction

Climate change connects the past to the future. For example, the long turnover time of carbon dioxide and the heat stored in oceans due to short-lived gases with high warming potentials make the effects of both short- and long-lived greenhouse gases accumulate over time (Solomon et al., 2009). Negotiating responses to climate change therefore relates not only to the future effects of near-present emissions but also to past emissions (Andres et al., 1999; Pinguelli-Rosa & Munasinghe, 2002).

In negotiations under the UN Framework Convention on Climate Change (UNFCCC), the importance of history for the differentiation of responsibilities has long been disputed under the label ‘historical responsibility’ (Friman & Linnér, 2008; Müller et al., 2009). Scholars have documented the establishment of historical responsibility in the negotiations before and in the 1997 ‘Brazilian proposal’ (La Rovere et al., 2002; Friman, 2013a) and analyzed the methodological and scientific aspects of this proposal (e.g. den Elzen et al., 2005; Höhne & Blok, 2005; Rive & Fuglestad, 2008). Other studies have criticized establishing proportionality between emissions and responsibility, instead advocating a more conceptual understanding of the moral significance of history (e.g. Caney, 2006; Jagers & Duus-Otterström, 2007). Studies have also elaborated on the moral and normative aspects of historical responsibility (Botzen et al., 2008; Friman & Linnér, 2008). Despite these contributions, knowledge is still scarce concerning how climate change policy-makers understand historical responsibility. Little is also known of what this implies for the fate of historical responsibility in future UNFCCC negotiations.

Although long treated in negotiations, the ‘historical responsibility’ concept was not officially recognized until the 16th session of the Conference of the Parties (COP) to the UNFCCC in 2010. This paper analyzes whether this consensual decision on a contentious issue, namely, historical responsibility, indicates growing agreement as to how to interpret and operationalize it in future climate change negotiations. Three questions guide the analysis, all concerning perceptions of this decision among UNFCCC COP delegates (henceforth ‘COP delegates’):

- 1) To what extent do COP delegates agree with the decision on historical responsibility?
- 2) To what extent do COP delegates think that the decision is significant for the design of future treaties or decisions?
- 3) Has the COP-16 decision reconciled conflict over historical responsibility operationalization, i.e. what should historical responsibility imply in terms of commitments to respond to climate change?

Given these questions, the paper will elaborate on the implications of the decision for future negotiations on historical responsibility (under the Durban Platform for Enhanced Action), particularly whether any options are characterized by more similar perceptions among COP delegates.

The next section presents the contentious history of historical responsibility in UNFCCC negotiations, and the conceptual and proportional understandings of historical responsibility. The ‘Method’ section presents the design, administration, and analysis of the survey of COP participants. The presentation of the survey findings is structured around agreement, significance, and operationalization, before conclusions are presented to end the paper.

Historical responsibility in UNFCCC negotiations

To approach historical responsibility, it is advisable to first dissect its history and responsibility components. The context for the UNFCCC negotiations on historical responsibility is the more general concept 'responsibility'. Responsibility signals an obligation to act, which not automatically equals to a commitment. In Multilateral Environmental Agreements, principles on distribution of responsibilities generally are intended to guide operative text that specifies commitments. Responsibility, thus, serves as a policy driver, i.e. it facilitates specification of commitments, policies, and measures to deal with the problem in question (Honkonen, 2009; Cordonier Segger et al., 2003).

The central policy driver of responsibility in the Convention is articulated in Article 3.1 stating that parties should protect the climate system 'on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities' (UN, 1992). We have underlined four elements in Article 3.1 that are key to understanding responsibilities. Common but differentiated responsibilities (CBDR) includes elements of universalization and differentiation (Matsui, 2002, p. 153). The notion of common responsibility rests on a tradition framing climate change as urgent, boundless, universal, dynamic, and the need to ensuring global efficiency. The climate change problem is here seen as ecologically interconnected, acute, and, consequently, calls for immediate, global responses (Linnér & Jacob, 2005; Friman & Linnér, 2008). Differentiation primarily follows from the different capabilities to act. It is seen as inequitable if action is evaded despite capacity to act (Stone, 2004). If history has a moral significance, it is because differentiated capacities to act may have been accumulated unjustly, e.g. through imperialism or colonialism (Caney, 2006).

Underscoring differentiation, on the other hand, presumes that the world system is characterized by unequal exchange emerging from unfair power relationships, and that this

should be accommodated in international agreements (Agarwal et al., 2001). This frame of climate change emphasizes the relationship between history of over-consumed atmospheric space and responsibility to act. Since equity is not more clearly specified in UNFCCC Article 3, on Principles, than through its relation to CBDR, its interpretation when drafting commitments or actions is guided by the preamble, noting:

... that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs (UN, 1992).

Here, the interpretation of CBDR provides guidance on several measures of equity used in differentiating common responsibilities: historic and current emissions weighted against populations, and accounting for needs for development, particularly in developing countries. The struggle to position and inscribe the concept of historical responsibility among existing agreements occurs in this context.

Science and politics of historical responsibility

Historical responsibility, when linked to the differentiation of responsibilities, has become both an underpinning rationale for and a concrete means to operationalize equity. As an underpinning rationale, historical responsibility is often used by its proponents to justify equal rights to use the common global atmosphere (Ikeme, 2003). Based on this assumption, differentiated responsibilities are justified to the extent that the atmosphere has been unequally exploited as a greenhouse gas sink. To operationalize equity, discussions have been concerning

the extent to which the UNFCCC operationalizes historical responsibility through commitments. The UNFCCC attaches different commitments to different categories of countries: Annex 1 countries (A1), i.e. OECD countries in 1992 and economies in transition, are assigned greater commitments to mitigate climate change; Annex 2 countries (A2), i.e. OECD countries in 1992, are assigned stronger commitments relating to finance; and countries not included in Annex 1 (NA1), i.e. developing countries, are assigned softer mitigation commitments and conditional commitments for communicating information, depending on A2 financial transfers.

When the UNFCCC was adopted in 1992, this scheme of responsibility distribution was assumed by some to settle the historical responsibility issue. However, in the 1995–1997 negotiations for the Kyoto Protocol (henceforth KP), new proposals concerning the differentiation of commitments within A1 countries were made (cf. UN, 1995). Negotiations did not explicitly discuss historical responsibility, yet they did reopen the differentiated responsibility issue. In 1997, Brazil submitted an interpretation of historical responsibility in which commitments are assigned in proportion to countries' contributions to climate change (UNFCCC, 1997; Friman & Linnér, 2008; Müller et al., 2009).

COP-3, Kyoto, referred methodological and scientific aspects of the Brazilian proposal for further consideration by its Subsidiary Body for Scientific and Technological Advice (SBSTA). Under the SBSTA mandate, historical responsibility became understood mainly in a technical and scientific sense (Friman & Linnér, 2008; Müller et al., 2009). After ten years of negotiations, the SBSTA finally closed the agenda item in 2008, noting that the results of the scientific and methodological investigations 'may be relevant to the work of Parties under other bodies and within other processes under the Convention and its Kyoto Protocol'

(UNFCCC, 2008b: §112). A few years before, in 2005–2007, new negotiating forums had been created in which the struggle over the preferred interpretation of historical responsibility intensified. One forum was the temporary subsidiary body to negotiate a second commitment period under the KP (the AWG-KP), and the other a temporary subsidiary body to negotiate long-term cooperation under the UNFCCC (the AWG-LCA) (UNFCCC, 2006, 2008a).

The historical responsibility concept has thus been gradually accepted, and codified in the UNFCCC negotiations since 1991. Currently, the concept is not only established, but also officially accepted, as reflected in the COP decision 1/CP.16, at Cancún 2010 (UNFCCC, 2011), acknowledging:

... that the largest share of historical global emissions of greenhouse gases originated in developed countries and that, owing to this historical responsibility, developed country Parties must take the lead in combating climate change and the adverse effects thereof.

Two prominent understandings of historical responsibility have been visible in both the negotiating (Friman, 2013a), and the scientific communities (Friman & Strandberg, 2014): one ‘proportional’ and one ‘conceptual’. The COP-16 decision does not clearly indicate which understanding is favored.

Proportional and conceptual understandings of historical responsibility

The majority of discussions on historical responsibility, both in science and in the UNFCCC, have departed from a proportional view. UNFCCC deliberations on the afore-mentioned Brazilian proposal is a prominent example that has also been heavily discussed in the

scientific community.¹ Proportional understandings of historical responsibility assign responsibility relative to countries' contributions to climate change. Various climate change indicators have been used to measure contribution, and various methodologies have been used to attribute climate change contributions to individual countries (den Elzen et al., 2005; Höhne & Blok, 2005; Trudinger & Enting, 2005; Friman & Strandberg, 2014). A proportional understanding of historical responsibility, however, is often underpinned by an interpretation of Article 3.1 on differentiated responsibilities in light of the UNFCCC preamble noting that most historical emissions originated in developed countries (UN, 1992).

Few scholars have departed from a conceptual understanding of historical responsibility, but their significance to the UNFCCC negotiations is increasing. Conceptual understandings focus on the moral importance of colonial and imperial history, arguing, again in view of Article 3.1, that developed countries are morally responsible to take the lead in combating climate change (Rajamani, 2000), but not necessarily in proportion to their contributions (Caney, 2006; Halme, 2007; Friman & Strandberg, 2014). These definitions of historical responsibility typically understand Article 3.1 as fully operationalized through differentiating responsibilities by attaching different commitments to different categories of Parties specified in the Annexes and elsewhere.

While historical responsibility has, over time, been less questioned in the UNFCCC negotiations, the struggle between the proportional and conceptual understandings has intensified (Friman, 2013a). This intensification can be understood as a reaction to the historical responsibility concept as now explicitly anchored in the treaty context in close

¹ See for example the research cooperation of MATCH (the Ad hoc group for the modelling and assessment of contributions of climate change) at www.match-info.net.

connection with the central policy driver of responsibility, CBDR. Historical responsibility, thus, will continue to engage responsibility negotiators more generally. If the historical responsibility concept cannot be wished away, gaining the preferential right to interpret it becomes all the more important.

Method

The data used here were obtained through surveys conducted at two consecutive UNFCCC COPs after the COP-16 decision on historical responsibility, i.e. at COP-17 in Durban, 2011, and COP-18 in Doha, 2012. The survey was conducted by the *International Negotiations Survey*, which has previously been used to explore leading actors in climate change negotiations (Karlsson et al., 2011; Karlsson et al., 2012), and roles of non-state actors in climate change governance (Nasiritousi et al., , 2014). The dataset comprises 404 completed surveys from COP-17 and 496 from COP-18. This article reports findings relating to survey items on COP-17 delegates' agreement with (377 responses) and significance of (352 responses) the COP-16 decision as well as operation principles for historical responsibility (382 responses at COP-17 and 477 responses at COP-18). The full dataset is uploaded as supplementary material to this article. The surveys were distributed in person at the conference venues, an operating environment that hampers random sampling. Quota sampling was instead used to select a strategic sample of the two largest and most important categories of COP participants: members of party delegations, e.g. negotiators and representatives of government agencies (henceforth 'governmental'); and observers, i.e. environmental, development, business and industry, and research and independent NGO representatives (henceforth, 'nongovernmental'). Respondents from the media and from the UN and other intergovernmental organizations (the two smallest participant categories) were not our primary focus. Responses from such participants are included in the nongovernmental sample

as are three respondents at COP-18 indicating that they were members of parliament but participated in the COP as observers. Roughly 45% of respondents were governmental and 55% were nongovernmental, corresponding well with the composition of the frame population in the two surveyed COPs, comprising approximately 48% governmental delegates. The sample contains delegates from all world regions; as some geographical categories contain few countries, the final sample includes few government representatives from North America and Oceania. Lead negotiators from the largest Parties are under-represented in our quota sample. Getting access to these participants in the busy COP-environment is hard, if not impossible. This means that our data risk missing such views. The analysis subdivided respondents according to their being from A1 or NA1 countries. A1 countries include those that were OECD countries in 1992 or so-called economies in transition to market economy. Since 1992, some countries' statuses have been amended to become A1; currently, there are 41 A1 countries. NA1 countries are the 154 other countries that are Parties to the UNFCCC. This enables exploration of whether role (governmental/nongovernmental) or geographical origin (A1/NA1) influenced the response pattern. Responses from delegates who did not indicate their geographical origin on the survey were put in a separate category. These responses correspond well with NA1 responses but were excluded from the presentation of subdivided results.

At COP-17, respondents were asked to indicate their level of agreement with (i) the COP-16 decision on historical responsibility, and (ii) the proposition that the decision would substantially influence future treaties or decisions (for complete surveys, see supplementary material). Both questions were structured as individual Likert items (Carifio & Perla, 2007; Likert, 1932). Likert items provide respondents with a bipolar weighting ranging from 1

(*disagree strongly*) to 7 (*agree strongly*) with the middle option *neither agree nor disagree*. The middle option is treated as reflecting indifference rather than unsureness.

At COP-17 and COP-18, questions were posed to explore how delegates understand historical responsibility. The respondents were asked to select one of four options describing how they interpreted the decision in relation to developed countries' responsibilities. The options were selected to capture conceptual and proportional understandings of historical responsibility (Friman, 2013a). Two response options were designed to capture proportional understandings of historical responsibility, namely, that developed countries should be responsible in proportion to their historical contribution to climate change: since 1990 *or* since preindustrial times. The latter reflects a strict proportional understanding of how historical responsibility should be made operative (Ellermann et al., 2011). The former reflects historical responsibility with an epistemic constraint, meaning that it should not be demanded from contributors who did not know that their actions caused harm (Gosseries, 2004; Meyer, 2004; Schüssler, 2011). The year 1990 was chosen as the baseline for the epistemic constraint, since it coincides with the release of the first Intergovernmental Panel on Climate Change (IPCC) assessment report, the base year for most countries with emissions reductions commitments under Annex B of the KP (UNFCCC, 1998), and the UN General Assembly's mandate to start intergovernmental negotiations on the UNFCCC.

The third response option was designed to capture a conceptual understanding of historical responsibility, underscoring a moral, as opposed to legal, obligation for developed country Parties to be responsible. The responsibility, however, needs not be in proportion to Parties' contributions to climate change (Caney, 2006; Halme, 2007). In the COP-17 questionnaire, the fourth response option enabled delegates to indicate their own understanding of how

historical responsibility relates to the responsibilities of developed country Parties. This option was informed by the broader literature on historic responsibility, which includes weighing climate change contributions against population (Guoquan et al., 2009; Rive & Fuglestedt, 2008) or accounting only for contributions above a subsistence or development threshold (Baer et al., 2008; den Elzen et al., 2005). Very few (3%) respondents chose this option and no general categories could be abstracted from the individual responses. In the COP-18 survey, this response option was substituted for one emphasizing the insignificance of historical contributions for distributing the responsibilities of developed country Parties. This alternative is understood as a strict version of conceptual understanding. Some respondents chose more than one response option; these data were included in the final sample after division by the number of responses. For example, if the respondent chose two options, each was assigned 0.5. When columns in tables do not add up to 100%, it is due to inherent rounding errors. The number of valid responses are indicated in notes below all tables.

Historical responsibility: agreement, significance, and interpretation

Given the centrality of historical responsibility to conflict between developed and developing countries (Andonova & Alexieva, 2012; Botzen et al., 2008; Friman & Linnér, 2008) perceptions of A1 and NA1 delegates are compared. This level of abstraction allows discussion of the COP-16 decision on historical responsibility as part of long negotiations marked by North–South contestation. It enables examination of whether the agreement should be seen as a turning point in the longer process of negotiating historical responsibility or as a continuation of business-as-usual. This section is structured around: proportional versus conceptual understandings of historical responsibility, agreement on the COP-16 decision, and the significance ascribed to the COP-16 decision for future negotiations.

Respondents' understandings of historical responsibility

Decision 1/CP.16 for the first time explicitly established historical responsibility as a concept acknowledged by COP plenary consensus (UNFCCC, 2011). Many NA1 Parties have recently supported proportional versions of historical responsibility (cf. China, 2009; India, 2009). Alongside clearer proportionality options, conceptual understandings of historical responsibility have also been clarified and presented as alternatives to proportional interpretations. These also relate to historical emissions but stress the importance of *all* Parties taking action, with developed Parties leading this effort though not in proportion to historical contributions (cf. Japan, 2008).

The survey data clearly indicate that the consensual COP-16 decision did not settle the disputes between divergent understandings of historical responsibility. Table 1 shows the preferred understanding of all respondents at both conferences divided into A1 and NA1 categories. Notably, 80% of NA1 respondents indicated a proportional understanding of historical responsibility, roughly half understanding it as strictly proportional and half as epistemically constrained (contributions since 1990). The understandings of respondents from A1 countries were less clear, as indicated by 41% conceptual and 58% proportional understandings, the latter slightly favoring the epistemically constrained version.

Table 1 Preferences for proportional or conceptual historical responsibility among all respondents at COP-17 and COP-18 [%]		
	<i>Annex 1^a</i>	<i>Non-Annex 1^b</i>
Proportional: Historical emissions since preindustrial times	25	42
Proportional: Historical emissions since 1990	33	38
<i>Proportional, total</i>	<i>58</i>	<i>80</i>
Conceptual: Morally responsible for historical contribution	37	18
Conceptual: No responsibility in proportional terms	4	2
<i>Conceptual, total</i>	<i>41</i>	<i>20</i>

Sum of COP-17 (2011) and COP-18 (2012) delegates' preferences for proportional or conceptual historical responsibility in UNFCCC negotiations. The respondents are divided into categories of Annex 1 and non-Annex 1 delegates, expressed in %. (Number of valid observations for a=313 and b=417).

As Table 2 shows, the overall pattern of differences in interpretations of historical responsibility among all A1 and NA1 respondents is even more distinct among the A1 governmental respondents: more of the A1 governmental respondents favor a conceptual understanding, and the number of these delegates upholding a strictly proportional understanding is below the average of all A1 delegates.

Although two measurements are insufficient for discerning long-term trends, a distinct pattern is evident: a proportional understanding of historical responsibility is growing. The share of A1 governmental respondents indicating a proportional understanding of historical responsibility increased from 45 to 58%, with a similar increase among A1 nongovernmental respondents. Proportional understandings of historical responsibility also increased among NA1 governmental respondents, but less so, and starting from a considerably higher share.

For both A1 governmental and nongovernmental respondents, the entire rise is caused by increased recognition of epistemically constrained proportionality (emissions since 1990). Consequently, the A1 response pattern has become more distinct, shifting toward a proportional understanding in general and the epistemically constrained version in particular. For NA1 governmental respondents, the data suggest a marked increase in a strict proportional understanding of historical responsibility, making it the favored interpretation. The increased overall recognition of a proportional understanding goes along with increased polarization between different versions of proportionality. Note, however, that 40% of the A1 governmental respondents still favor a conceptual understanding.

Table 2 Preferences for proportional or conceptual historical responsibility among all respondents at COP-17 and COP-18 [%]								
	<i>Governmental</i>				<i>Nongovernmental</i>			
	<i>Annex 1</i>		<i>Non-Annex 1</i>		<i>Annex 1</i>		<i>Non-Annex 1</i>	
	2011 ^a	2012 ^b	2011 ^c	2012 ^d	2011 ^e	2012 ^f	2011 ^g	2012 ^h
Proportional: Historical emissions since preindustrial times	15	15	36	54	29	28	37	41
Proportional: Historical emissions since 1990	30	43	41	30	26	39	43	40
<i>Proportional, total</i>	45	58	78	84	56	67	81	81
Conceptual: Morally responsible for historical contribution	55	35	22	14	44	25	19	15
Conceptual: No responsibility in proportional terms	–	7	–	2	–	9	–	4
<i>Conceptual, total</i>	55	42	22	16	44	34	19	19

Number of valid observations for a=41, b=34, c=111, d=139, e=95, f=95, g=91, and h=134.

The data suggest that the struggle over how to interpret historical responsibility will likely continue. The acceptance of historical responsibility in the COP-16 decision is also understandable because it has become more viable to understand it not only proportionally but

also conceptually. If historical responsibility is not solely understood in proportional terms, actors opposing a proportional understanding can place the concept in relation to regional differentiation, one region (A1) assuming more responsibility than others (primarily NA1). Quantified commitments within A1, rather than between A1 and NA1, can in this interpretation of historical responsibility instead be based on, for example, ability to act given national circumstances. This conclusion finds support in how the distribution of agreement with the decision correlates with the preferred interpretations of historical responsibility among governmental delegates, a topic examined below.

Agreement with the COP-16 decision on historical responsibility

UNFCCC negotiating practice is designed to build a high level of agreement with decisions among governmental delegates (Friman, 2013b). The UNFCCC demands that the COP adopt rules of procedure by consensus (UN, 1992), and failure to do so precludes voting on any matters of substance. This fosters a strong culture of decision-making by consensus. In any case, global environmental issues often call for attempts at consensus: their resolution requires the widest possible international cooperation, and consensus ensures all Parties' agreement with any decision, fostering ownership and a sense of responsibility for implementation (Depledge, 2005; Hurd, 1999).

Parties are therefore expected to voice considerable agreement with COP decisions. Indeed, the survey data (Table 3) indicate a high level of agreement with the COP-16 decision among the governmental respondents. About two thirds of all governmental respondents either agree (6 on the scale) or agree strongly (7 on the scale) with the decision. Here, too, the responses diverge between governmental respondents from A1 and NA1 countries. The corresponding

number for NA1 governmental respondents is 74%, versus 49% of A1 governmental respondents.

That the concept seems more preferred by developing than developed country governmental respondents is also expected from the history of Parties' positions in negotiating historical responsibility. While almost two-thirds of NA1 governmental respondents favor the 'agree strongly' option, only one third of A1 governmental respondents agreed strongly and almost one third were indifferent or did not agree. This suggests quite weak consensus. Despite consensual agreement, our study demonstrates that support for the concept is still markedly higher among NA1 than A1 governmental respondents.

Table 3 Level of agreement with the COP-16 decision on historical responsibility among COP-17 governmental respondents [%]			
<i>Agreement</i>	<i>Annex I^a</i>	<i>Non-Annex I^b</i>	<i>Total^c</i>
7 (strong)	33	63	57
6	16	11	12
5	20	10	13
4	20	11	12
3	2	1	1
2	7	2	3
1 (weak)	0	3	2

Number of valid observations for a=45, b=103, and c=181. Note that not all government delegates have indicated nationality thus $a+b \neq c$.

To conclude, governmental respondents generally indicate agreement with the COP-16 decision, though NA1 governmental respondents agreed more strongly than did A1 governmental respondents. Furthermore, almost one third of A1 governmental respondents

were indifferent to or disagreed with the decision, indicating that formal consensus need not imply unanimous agreement.

The data also suggest that a respondent's level of agreement with the decision correlates with his or her preferred interpretation of historical responsibility. The cross-tabulation presented in Table 4 illustrates the correlations between agreement with the COP-16 decision and the different understandings of historical responsibility. The less a respondent agrees with the decision, the more s/he favors a conceptual interpretation of historical responsibility. Most clearly, if a respondent disagrees with the decision, she or he also clearly avoids interpreting the concept as implying responsibility proportional to contribution to climate change since preindustrial times. This pattern is observed among both A1 and NA1 governmental respondents, although less strikingly among NA1 respondents.

Table 4 Preferences for historical responsibility according to agreement with the COP-16 decision among COP-17 governmental respondents [%]				
	<i>Level of agreement</i>			
	<i>Annex 1</i>		<i>Non-Annex 1</i>	
	<i>Low^a</i>	<i>High^b</i>	<i>Low^c</i>	<i>High^d</i>
Proportional: Historical emissions since preindustrial times	0	30	19	37
Proportional: Historical emissions since 1990	32	27	52	44
<i>Proportional understanding, total</i>	<i>32</i>	<i>57</i>	<i>72</i>	<i>81</i>
Conceptual: Morally responsible for historical contribution	68	43	28	19
<i>Conceptual understanding, total</i>	<i>68</i>	<i>43</i>	<i>28</i>	<i>19</i>

High level of agreement refers to ≥ 6 (i.e. agree to agree strongly) and low refers to ≤ 5 (i.e. disagree to agree slightly). Number of valid observations for a=19, b=20, c=27, and d=73.

A conceptual understanding of the significance of historical contributions for responsibility to act is more compatible with the currently emerging pledge-and-review system of commitments and actions than is a proportional understanding. A conceptual understanding supplies little detail about the distribution of commitments, which may explain why the decision was possible even in the context of low support among many governments' representatives. Knowledge of the strong positions on proportional interpretations among almost all NA1 respondents, and a considerable number of A1 respondents too, may also reduce support of the concept among those interpreting responsibility in conceptual terms. The rationale is that, if a respondent preferred a conceptual interpretation and knew that most other respondents also preferred a conceptual interpretation, then his or her support for the agreement would likely increase.

Significance of the COP-16 decision for future negotiations

Similar to agreement, NA1 governmental respondents generally ascribe greater significance to the COP-16 decision than do A1 governmental respondents. Table 5 shows that 60% of all governmental delegates indicated that the decision would have either a significant or very significant influence on future agreements. The corresponding shares among governmental respondents are 72% for NA1 and 43% for A1 respondents.

Low levels of agreement also correlate with respondents' indicating that the agreement has little significance for future agreements. Most NA1 governmental respondents, however, have indicated strong agreement and very high significance for future agreements. The A1 responses are more divergent, indicated by the dual modes in the distribution of level of agreement responses (around both 'agree strongly' and 'indifferent'), and by the distribution of the level of significance around 4 and 5 on the scale. Here, too, almost one third of A1

governmental respondents were either indifferent or ascribed little significance to the decision. For example, among the 33% of A1 governmental respondents agreeing strongly with the COP-16 decision, the average value assigned to the future significance item was 5.8, versus 4.4 among the 49% choosing response options 1–5 on the Likert scale, i.e. ranging from disagree strongly to slightly agree with the decision.

Governmental respondents from NA1 countries attached greater weight to the significance item even when level of agreement is compensated for. For example, among governmental respondents agreeing strongly with the COP-16 decisions, the average significance value chosen was 6.4 among NA1 versus 5.8 among A1 respondents. The difference is even more marked among respondents choosing a 6 on the scale. For governmental respondents indicating low agreement, no difference was found between A1 and NA1 countries. The lower weight attached to significance among A1 governmental respondents sheds light on the high levels of agreement with the decision despite their being less supportive of historical responsibility in the negotiations. The rationale is that, if one thinks a decision will have minor consequences, then one need not block it even if one disagrees with it.

Table 5

Significance attached to the COP-16 decision for a future regime among COP-17 governmental respondents [%]

<i>Significance</i>	<i>Annex I^a</i>	<i>Non-Annex I^b</i>	<i>Total^c</i>
7 (very significant)	15	54	40
6	28	18	20
5	26	14	20
4	15	7	9
3	11	2	5
2	0	1	1
1 (insignificant)	2	3	3

Number of valid observations for a=46, b=92, and c=167.

Governmental respondents ascribing little significance to the COP-16 decision generally favor a conceptual understanding of historical responsibility. One could reasonably argue that a conceptual understanding of historical responsibility is most compatible with the responsibility distribution pattern emerging from current negotiations. A conceptual understanding of historical responsibility is attuned to a bottom-up pledge-and-review approach to commitments or actions. According to this understanding of historical responsibility, CDBR is operationalized by acknowledging that A1 countries should take the lead by quantifying actions based on proxies other than historical contribution. For example, such operationalization may reflect A1 countries' historically accumulated capacity to act. Accordingly, respondents understanding historical responsibility conceptually do not foresee the decision to acknowledge historical responsibility as significantly influencing the design of future agreements.

Proportional understandings of historical responsibility imply something completely different. By introducing proportionality between historical contributions and responsibility to act on climate change, these understandings operationalize the CDBR principle through an allocative framework in a formulaic manner. This understanding is more attuned to the basic design of the KP, i.e. first establishing an aggregated target for all A1 Parties that subsequently is allocated among the individual A1 Parties. This two-step approach also guided the negotiations for a second commitment period under the KP, in which proportional understandings of historical responsibility for allocating commitment to individual Parties in Annex B of the KP were also proposed (UNFCCC, 2009a, 2009b).

In 2010, COP-17 decided that the objective should be met through urgent action to reduce “global greenhouse gas emissions so as to hold the increase in global average temperature below 2°C above pre-industrial levels” (UNFCCC, 2011). While the global goal is, indeed, still very vaguely defined, in terms of, for example, unspecified concentration goals or timeframe for peaking of emissions, the take-away message from e.g. the IPCC, and the UN Environment Programme (UNEP) is clear: responding to climate change in ways that can keep the temperature below 2°C is a matter of great urgency (IPCC, 2013; UNEP, 2013). Given the agreed-on global 2°C warming goal and the evidence that Parties’ current bottom–up pledges are far from sufficient to achieve that goal, the stakes in the negotiations on top–down allocation schemes have increased dramatically. Consequently, it is reasonable that governmental respondents understanding historical responsibility in proportional terms should also ascribe the decision greater significance for future agreements, e.g. by introducing a formulaic top–down scheme to distribute responsibility for meeting the 2°C goal.

Implications for contemporary negotiations

CBDR was not explicitly mentioned in the final agreement of COP-17 to launch negotiations under the Durban Platform for Enhanced Action, even if implicitly recalled through COP decisions (UNFCCC, 2012). Countries like the US and Canada hoped that this signalled a departure from the hard-lined division around CBDR on, e.g. how to operationalize historical responsibility. Additionally, the Durban Platform stated that a new agreement would be “applicable to all Parties”, which several analysts interpret as implying that major developing economies should take on mitigation commitments of the same or similar nature as the developed economies (Winkler & Rajamani, 2014; Morgan & Waskow, 2014).

Yet, discussions on historical responsibility did not dissolve from the UNFCCC negotiations. After COP-17, the most vivid forum for discussing historical responsibility was the broader and relatively newly created issue: Equitable Access to Sustainable Development (EASD). As part of the COP-16 agreement, it was decided that EASD would be further considered by COP-17 (UNFCCC, 2011), which, in turn, requested the AWG-LCA to consider EASD in a workshop due in 2012 (UNFCCC, 2012). During the workshop – a type of in-session discussions that does not constitute formal negotiations thus allowing countries to more freely share perspectives and raise concerns – several major developing countries outspokenly suggested linking EASD to CBDR in general and proportional historical responsibility in particular. The Chinese delegate viewed EASD as a “fundamental issue” for the UNFCCC negotiations, the workshop as “just a starting point”, and called for a work program on equity to further define EASD (China, 2012).

At the formal COP-18 negotiations, countries like India and China have again explicitly requested that any future mitigation agreement should be firmly rooted in CBDR and reflecting what they understand as developed countries’ disproportionate historical responsibility, i.e. in proportional terms. This could be understood as a reaction against that the discussions on the meaning and anchoring of EASD in a future agreement were not taken forward from COP-18. The most vivid forum for negotiating historical responsibility, i.e. as part of the EASD negotiations, thus had reached a dead end. In this connection, COP-19 in Warsaw offered nothing news. However, it can be expected that when negotiations move from discussing the form of the expected 2015-agreement into sincere discussions on its content and how to operationalize principles into commitments and actions, the issue of how to understand historical responsibility will become hard to resolve.

Having decided on the 2°C goal further complicates building consensus on historical responsibility for two reasons. First, under a formulaic approach to historical responsibility – a proportional version – the specifics of the 2°C goal would have great consequences for individual Parties' quantified emissions reduction commitments. Meeting the 2°C target with, say, 50% certainty would entail one set of commitments whereas meeting it with 75% certainty would entail much deeper emission cuts. This uncertainty makes it unlikely for countries with high historical contribution to climate change to agree on operationalizing historical responsibilities based on a proportional view. Second, the 2°C goal is also accompanied by a review whether this goal needs to be strengthened in the future, including the consideration of a 1.5°C goal. This review should be completed in 2015. This aggravates the uncertainty that could make a large difference in commitments for countries with a high relative responsibility.

The relative responsibilities, indeed, are different if proportionality is introduced between contribution to climate change and responsibility to act based on emissions since preindustrial times or since 1990. If using 1990 as a base year, emissions have been increasing in many developing countries and decreasing in many developed countries. This implies greater responsibility of major developing countries, responsibilities that are quickly approaching the level of many developed countries (Botzen et al., 2008).

In this study, most governmental respondents favor proportional historical responsibility that is epistemically constrained. About two thirds of the governmental respondents favored using proportionality with 1990 as a base year. In light of the above, this version of historical responsibility could be understood as a middle ground between strict proportionality and conceptual understandings. However, the way in which the current negotiations are

proceeding suggests that a 2015 agreement, if at all within reach, will be based on a “pledge-and-review” approach. This overall development trajectory of the climate regime is reconciled with a conceptual understanding of historical responsibility. Promoting a proportional view therefore becomes much more an act in opposition to, rather than in reconciliation with, the contemporary context to historical responsibility in the negotiations (Friman & Strandberg, 2014). Oppositely, however, the data suggest that an increasing share, a majority, of climate change negotiators adhere to a proportional understanding of historical responsibility. Resolving the large controversies over how to operationalize historical responsibility in the UNFCCC consensus regime, where the regime’s overall development trajectory is in opposition to many negotiators’ understanding of and official country positions on historical responsibility, is most likely going to be extremely hard.

Conclusions

This paper set out to analyze whether a consensual decision on a contentious issue, namely, historical responsibility, indicated growing agreement on how it should be interpreted and operationalized in future climate change negotiations. Using unique survey material collected at two consecutive COPs, three questions guided the analysis, each touching on a different dimension of the ‘consensus’ and its future application in climate negotiations: agreement with the COP-16 decision to acknowledge historical responsibility, the significance ascribed to the decision for future agreements and decisions, and shares of delegates favoring different versions of the proportional and conceptual understandings of historical responsibility.

First, the data demonstrate that the interpretation of historical responsibility varies prominently between respondents from A1 and NA1 countries. This finding reflects a well-established pattern in the negotiations reported elsewhere (Najam et al., 2003; Ikeme, 2003;

Heyward, 2007; Friman, 2013a, Friman & Strandberg 2014). Accordingly, NA1 governmental respondents overwhelmingly prefer to understand historical responsibility in proportion to historical contribution to climate change, establishing a strong link between historical emissions and future climate mitigation commitments. The pattern is less clear among A1 governmental respondents, about half indicating proportional and half indicating conceptual understandings. The pattern is similar among nongovernmental respondents, though with a markedly larger share of A1 nongovernmental than governmental respondents preferring proportional understandings.

Second, the data suggest that respondents' understandings are not static. Increasing proportional understanding shares were found among both A1 and NA1 governmental respondents, and A1 nongovernmental respondents display considerable elasticity of preference. Governmental respondents preferences seemed not to change uniformly: A1 respondents display a clear increase in preference for the epistemically constrained (contributions since 1990) version of proportional responsibility, while NA1 respondents increasingly prefer the strict (i.e. preindustrial) version. This suggests a convergence toward proportional understandings more generally, yet a polarization in the negotiations between different versions of proportionality.

Third, the weights attached to the significance of the COP-16 decision on historical responsibility for future agreements differ between governmental respondents. Respondents favoring a proportional understanding of historical responsibility ascribed greater significance to the decision than did respondents favoring a conceptual version. Since the emerging pledge-and-review approach to commitments is more in line with a conceptual understanding of historical responsibility, the fact that those favoring proportional interpretations ascribe

great significance to the decision is understandable because they challenge the emerging pledge-and-review regime by proposing a formulaic approach; to allocate commitments based on countries' contributions to climate change.

Finally, governmental respondents from NA1 countries agree much more strongly with the COP-16 decision than do those from A1 countries. Again, those favoring a conceptual version of historical responsibility – i.e. the same group that ascribed the agreement less significance for future negotiations – also agree less with the decision. These findings are also consistent with the positions in the climate negotiations on historical responsibility, and could shed light on why the decision was possible despite opposition among many A1 countries. The rationale here would be that, if one thinks that the decision will only have minor consequences, then one do not need to block it, even if one disagrees.

Did the consensual decision, then, signal a turning point in UNFCCC North–South politics regarding historical responsibility? Two factors should be highlighted in this regard. First, the decision has not resolved the fundamental and longstanding conflict between proponents of proportional versus conceptual understandings of historical responsibility. If anything, it has ended conflicts between spokespeople favoring and opposing explicitly establishing historical responsibility as a validated concept by a COP decision. The COP-16 decision clearly establishes the concept as a legitimate departure point for further negotiations; hence, as of the decision, refuting historical responsibility is no longer valid. The significance of historical responsibility is still, however, being discussed, and the survey material from COP-17 and COP-18 reflects the last six years of historical responsibility negotiations in which the decision has had little effect on fundamental differences in understandings.

Second, the COP-16 decision may still mark, if not a turning point, at least a change of direction in the historical responsibility negotiations. As the concept is now a validated reference point, full attention can be directed toward how to understand it. However, the data support very divergent interpretations, indicating that this conflict is difficult to resolve. Nevertheless, based on the pattern of respondent understandings, the negotiations could reach very different outcomes emphasizing strictly proportional historical responsibility versus proportional responsibility in general terms (i.e. strict or constrained). As the data indicate, a slight majority of A1 governmental respondents actually favor a proportional understanding of historical responsibility. If the NA1 negotiation strategy underscores the validity of stronger linkages between past emissions and future action, creating an opening for proportionality in more unspecified terms (strict and constrained), momentum may be created that facilitates more recognition of historic responsibility alongside other measures to differentiate responsibility. By emphasizing *strictly* proportional historical responsibility (preindustrial), the data suggest that a more likely outcome will be massive resistance based on the slight minority of A1 respondents and the few but not insignificant proportion of NA1 governmental respondents favoring a conceptual understanding of historical responsibility and the two thirds of A1 and one third of NA1 respondents favoring the epistemically constrained version of proportional responsibility.

Despite considerable vagueness as to the details of the agreed-on 2°C global goal, the goal itself raises the stakes in negotiating historical responsibility: the significance of anchoring historical responsibility in the agreements as a conceptual or proportional concept increases under a global goal. Again, the governmental respondents reflect this fact; if the level of significance of historical responsibility is downplayed, it goes hand in hand with a conceptual understanding. A proportional understanding of the concept also increases the level of

importance – and tension – ascribed to the concept in responsibility negotiations. The conflict between these perspectives will likely intensify as the negotiations move from agreeing on the concept to negotiating how it should operate when designing commitments to meet the UNFCCC objectives.

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