

AN INCONVENIENT TRUTH: HOW ORGANIZATIONS TRANSLATE CLIMATE CHANGE INTO BUSINESS AS USUAL

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Climate change represents the grandest of challenges facing humanity. In the space of two centuries of industrial development, human civilization has changed the chemistry of the atmosphere and oceans, with devastating consequences. Business organizations are central to this challenge, in that they support the production of escalating greenhouse gas emissions but also offer innovative ways to decarbonize our economies. In this paper, we examine how businesses respond to climate change. Based on five in-depth case studies of major Australian corporations over a 10-year period (2005–2015), we identify three key stages in the corporate translation of climate change: *framing*, *localizing*, and *normalizing*. We develop a grounded model that explains how the revolutionary import of grand challenges is converted into the mundane and comfortable concerns of “business as usual.” We find that critique is the major driver of this process by continuously revealing the tensions between the demands of the grand challenge and business imperatives. Our paper contributes to the literature on business and the natural environment by identifying how and why corporate environmental initiatives deteriorate over time. More specifically, we highlight the policy limitations of a reliance on business and market responses to the climate crisis.

No challenge poses a greater threat to future generations than climate change.

—U.S. President Barack Obama, State of the Union Address, January 20, 2015

Of all the challenges facing humanity, none is more profound than anthropogenic climate change. Through the increasing consumption of fossil fuels for energy and transportation and the degradation of carbon sinks such as forests and oceans, the Earth’s climate has already warmed on average by 1° Celsius from preindustrial levels (Mann, 2014). Recent analysis by the Intergovernmental Panel on Climate Change (IPCC) suggested the world is on track for a global average temperature increase of 3° to 5°

Celsius by the end of the century, with much of this warming locked in as early as 2020–2030 (IPCC, 2013). Environmental change of this kind is unprecedented for our species, and climate scientists argue that such a future is likely to be incompatible with human civilization (New, Liverman, Schroeder, & Anderson, 2011). Indeed, the current trajectory of global emissions presents an unimaginable future of large tracts of the Earth rendered uninhabitable, the collapse of global food production, mass species extinction, the acidification of the oceans, dramatic sea level rises, and storms and droughts of growing ferocity (Hansen, 2009; Mann & Kump, 2015).

Responding to climate change is particularly important for scholars in organization and management theory, in that both the causes and possible solutions to climate change derive from our globalized economy and the corporations that underpin it (Howard-Grenville, Buckle, Hoskins, & George, 2014). Corporations are central to the characterization of climate change as a “wicked” (Rittel & Webber, 1973; Wijen, 2014) or even a “super wicked” (Lazarus, 2009; Levin, Cashore, Bernstein, & Auld, 2012) problem. For instance, time is rapidly running out as regards avoiding dangerous climate change, yet corporations

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have historically lobbied against emissions mitigation and delayed action (see, e.g., Helm, 2010; Kolk & Pinkse, 2007; Levy & Egan, 2003). Further, while corporations are commonly presented as the best agents to respond to climate change (Garnaut, 2008; Stern, 2007), many of the world's major corporations have been the most significant contributors to humanity's escalating carbon emissions (Heede, 2014). However, despite the criticality of organizational responses to climate change, this is a topic that has been largely ignored (Goodall, 2008; Tsui, 2013) and has only recently become a concern in organization and management theory research (Howard-Grenville et al., 2014).

Advances in understanding how organizations respond to complex environmental issues such as climate change have been made within the scholarly field of business and the natural environment (B&NE) (see, e.g., Bansal & Hoffman, 2012; Starik & Marcus, 2000). This literature has explained how firms' environmental strategies and practices are influenced by pressure and critique from regulators and competitors as well as internal champions and external entities such as nongovernmental organizations (NGOs) (Delmas & Toffel, 2012; Murillo-Luna, Garcés-Ayerbe, & Rivera-Torres, 2008; Reid & Toffel, 2009). In response, businesses have sought to address environmental concerns through the practice of "corporate environmentalism," which seeks to balance competing demands between the market and the environment (Hoffman, 2001; Jermier, Forbes, Benn, & Orsato, 2006). In the literature on corporate environmentalism, scholars have highlighted how initial framings are turned into environmental practices (Bansal & Roth, 2000; Sharma, 2000), and how managers can cognitively uphold these competing demands (Hahn, Preuss, Pinkse, & Figge, 2014) or tensions (Van der Byl & Slawinski, 2015). However, the notable lack of progress in reducing carbon emissions suggests that firms struggle over time to practically deal with such grand challenges.

To further understand how firms respond to social and environmental grand challenges, we utilize a longitudinal approach, analyzing the process through which competing demands are interpreted and enacted in response to stakeholder critique and pressure. This, we argue, involves a continuous process of "translation" in which organizational actors make sense of potentially challenging ideas and concepts, negotiate their meaning, and adapt them for particular situations and contexts (Czarniawska & Joerges, 1996). From this perspective, ideas are not fixed, but, rather, change in the hands of people by

displacing certain aspects of concepts so they fit local discourses (Maguire & Hardy, 2009), as well as creating new meanings through association (Callon, 1986). Understanding the process of translating grand challenges into practice is critical, as this may guide the establishment of new forms of organization and governance arrangements that help address social and environmental concerns. This is particularly pertinent for long-term, complex challenges such as climate change, wherein corporations face conflicting and changing criticism from a range of different stakeholders.

In exploring how organizations respond to climate change over time, we undertook five in-depth case studies of major Australian corporations from different industries over a 10-year period (2005–2015). We examined how climate change was addressed, from the motivation to take action to the implementation of policies and practices. Analyzing interviews and documents, we found that, while these firms initially framed climate change in broad terms, organizational engagement with the concept inevitably resulted in more limited and less threatening ideas and practices that were amenable to prevailing discourses of profit maximization and "business as usual." To explain this environmentally regressive pattern, we developed a model that shows how the translation of grand challenges into corporate practices involves a dialectical process of responding to critique or criticism that continuously reveals the tensions associated with competing demands. We highlight the various stages through which grand challenges are translated within corporate settings, and identify how, over time, continuous critique and reassessment results in compromise in favor of a narrow profit motive.

Our study makes several contributions. First, as an in-depth empirical study of different corporate responses to climate change, we illustrate how grand challenges are translated to align with more dominant business discourses and practices. Continuous critique of competing demands eventually purifies dominant market discourses and dilutes climate change concerns. Second, our comparative and longitudinal perspective enabled us to develop a model to explain how diverse strategies and tactics in different firms produce similar outcomes. This explains the limitations of corporate engagement with grand challenges, and how this engagement supports dominant market discourses. Third, we balance overly positive or cynical views of managerial responses to social and environmental concerns with a model explaining how managerial framings

and initiatives are continuously challenged by everyday market evaluations. Finally, we identify and explain the limitations of business corporations' engagement with grand challenges due to the wickedness of these problems. We argue that corporations are particularly ill-suited to address climate change, since their short-term objectives and reliance on growth and political interventions inflate the super-wickedness of the issue. Our findings have important policy implications for those promoting a reliance on market mechanisms and business leadership as the dominant response to climate change. Echoing Al Gore (2006), our paper addresses "an inconvenient truth" for management scholars: the folly of over-dependence on corporations and markets in addressing one of the gravest threats to our future.

CORPORATIONS AND THE NATURAL ENVIRONMENT

Since the 1960s, corporations have faced increasing criticism from a range of stakeholders over environmental problems caused by economic development (Hoffman, 2001; Hoffman & Bansal, 2012). Opposing demands from economic and environmental discourses have acted as a central driver for corporate change (Hart, 1995), as stakeholder critique and the threat of regulation have triggered corporate environmental activities (Hoffman, 1999). Many corporations have responded to this tension through what Jermier et al. (2006: 618) referred to as the "new corporate environmentalism" (NCE), defined as "*rhetoric* concerning the central role of business in achieving both economic growth and ecological rationality as a *guide* for management that emphasizes voluntary, proactive control of environmental impacts in ways that exceed or go beyond environmental laws and regulatory compliance" (emphasis in original). This has resulted in activities such as improving eco-efficiency to reduce energy consumption and operational costs, increasing supply chain efficiency, identifying new products and services to satisfy changing market and social demands, and "green" marketing to better attract and retain employees and build stronger customer relationships (Hart, 1995; Porter & van der Linde, 1995; Russo & Fouts, 1997).

Two basic approaches are used to analyze NCE (Hoffman & Bansal, 2012). The first focuses on environmental issues within the dominant business paradigm and argues that corporations can address environmental problems *and* improve competitive performance, resulting in a so-called "win-win"

outcome (Fremeth & Richter, 2011; McWilliams & Siegel, 2010). Managers respond to environmental critique by signaling the importance of environmental concerns to internal and external stakeholders and framing the issue within a defensible business rationale (Bansal & Roth, 2000; Sharma, 2000). Through strategic framing, managers filter and construct contextual information into a strategy process by including certain aspects of the demands and excluding others (Bundy, Shropshire, & Buchholtz, 2013; Hahn et al., 2014). The communicated framing of environmental issues as a threat or an opportunity gathers support and directs new activities (Kennedy & Fiss, 2009). Corporate leaders ensure that the framing is locally enacted by creating specific environmental roles that provide a legitimizing effect (Bansal & Roth, 2000; Howard-Grenville & Bertels, 2012), and environmental "champions" convince others within the firm of the importance of environmental issues in meetings and on committees (Andersson & Bateman, 2000).

Despite the general optimism in this normative approach, evaluations of NCE recognize the tensions that result from the opposing demands of economic and environmental goals. Scholars have pointed out that, when "pressed to choose between financial goals and societal goals, firms will normally favor their financial goals" (Van der Byl & Slawinski, 2015: 58), thus eliminating the tension between opposing demands (Smith & Lewis, 2011). To avoid this regressive process, scholars have recently emphasized how firms can overcome conflicting goals by (a) integrating and aligning competing demands (Hahn, Figge, Pinkse, & Preuss, 2010; Whiteman, Walker, & Perego, 2013), or (b) juxtaposing and combining economic and environmental concerns (Gao & Bansal, 2013; Hahn et al., 2014). In the former integrative approach, the firm's economic focus is counterbalanced by placing greater emphasis on the environment, while the latter juxtaposing approach requires continuous stakeholder management and negotiation. However, as Van der Byl and Slawinski (2015) pointed out, there is limited knowledge of *how* firms integrate or balance competing environmental and economic concerns. Beyond the lack of empirical studies, it is not clear conceptually how firms that are continuously facing competing internal and external criticism manage the tensions that come with complex challenges.

The second, critical approach in evaluating NCE concludes that firms ultimately cannot manage these tensions; the market-environment conflict is seen as fundamental and cannot be upheld within the

corporate world (Banerjee, 2003). Scholars within this critical approach argue that the natural environment fails to be enacted within organizations beyond an immediate profit motive (Fleming & Jones, 2013; Levy, 1997; Newton & Harte, 1997), resulting in a trade-off in which the market trumps environmental well-being (Nyberg & Wright, 2013; Starkey & Crane, 2003). A first level of critique in this respect relates to the way in which such initiatives merely provide the appearance of environmental benefit (i.e., “greenwashing”) (Bowen, 2014; Lyon & Montgomery, 2015). In this view, NCE papers over the dissonance between the rhetoric and the reality of corporate greening, maintaining social legitimacy by placating concerned consumers and forestalling environmental regulation (Newton & Harte, 1997; Prasad & Elmes, 2005).

More substantively, however, others argue that corporate initiatives such as greener supply chains and “carbon neutrality” are driven by more basic business goals of cost reduction, productivity improvement, and market expansion (Dauvergne & Lister, 2013). Corporations invest in these programs not so much to ensure environmental sustainability, but to maximize business sustainability (Banerjee, 2003). NCE thus involves firms incorporating environmental critique from NGOs, the media, and employees within voluntary business activities that distract from the revolutionary changes actually required to address serious systemic environmental challenges. While compromise between the interests of the market and the environment may result, the continuous evaluation of corporate greening practices within both market and environmental discourses suggests that these compromises are, at best, temporary solutions (Nyberg & Wright, 2013).

Thus, both normative and more critical researchers highlight the strategic relevance of environmental challenges within corporations and the role of senior managers in strategically framing the meaning of an issue toward a preferred interpretation. Through strategic framing of an issue, managers interpret and construct a particular version of reality to internal and external audiences (Fiss & Zajac, 2006; Kaplan, 2008; Kennedy & Fiss, 2009). They shape the meaning of the issue by promoting firm responses corresponding to their interests and values (Sonenshein, 2016), and legitimize decisions and activities implemented in the firm (Vaara & Tienari, 2008). However, while there is literature on the role of managerial framing for both internal (Kaplan, 2008) and external (Fiss & Zajac, 2006) audiences, as well as upward influence through

issue selling of environmental concerns within organizational settings (Andersson & Bateman, 2000; Howard-Grenville, 2007), we know far less about the process through which firms reconcile competing demands from divergent stakeholder groups as they create and maintain frame-aligned local practices.

Further, beyond initial managerial framings, it is important to understand how organizations respond to stakeholder critiques and pressures over time. External and internal actors are active agents (Cornelissen & Werner, 2014), with environmental practices and activities open for translation in response to environmental and financial demands (Maguire & Hardy, 2009). Considering these competing demands, firms face the risk of ongoing internal and external critique in how they engage with the grand challenge—from initial framings to implementation of practices and evaluation of their success and failure. As a result, while corporate leaders may initially use framing to manage tensions between market and environmental discourses, the process through which framing informs practice and is upheld by involved actors in subsequent evaluation of environmental practices remains unclear. Accordingly, the guiding research question for this paper is as follows: *How do firms engage over time with competing demands in translating complex social and environmental challenges into practice?*

THE WICKEDNESS OF CLIMATE CHANGE

Unlike most challenges that businesses face, climate change has become a highly charged and partisan political issue intertwined with deeper ideological and cultural divisions (Hoffman, 2015; McCright & Dunlap, 2011). For instance, discussions about climate change in social and political discourse often include competing economic, religious, national security, innovation, environmental, and governance frames (Ansari, Wijan, & Gray, 2013; Hoffman, 2011). Further, despite overwhelming scientific evidence, organizational members may identify with climate change movements or political parties that oppose action on climate change (Sonenshein, DeCelles, & Dutton, 2014; Wright, Nyberg, & Grant, 2012). Corporate actors can expect to simultaneously face criticism for supporting as well as opposing action on climate change. This polarized debate also fuels the external volatility that influences corporate responses as they seek to align conflicting stakeholder positions.

The “super wicked” nature of climate change further exacerbates the limitations of substantive

corporate responses to it. First, time is rapidly running out if humanity is to avoid dangerous climate change (Anderson & Bows, 2011; IPCC, 2014). This temporal aspect is important, in that corporations alone cannot deal with the increasingly costly problem, especially not within quarterly or yearly reporting timeframes. Rather, climate change requires long-term strategies beyond the commitments of individual leaders and champions. It is therefore crucial that corporate climate change initiatives have longevity beyond their initial framings.

Second, while corporations are often viewed as the entities in the best position to address climate change through technological and market innovation (Garnaut, 2008; Stern, 2007), they are also major contributors to climate change. Corporations represent 40% of the world's largest economic entities, with both revenues and greenhouse gas emissions dwarfing many national economies (Heede, 2014; Patenaude, 2010). In a global economy based on economic growth and fossil fuel-based energy, corporations have limited incentives to undertake radical decarbonization, and have resisted attempts to legislatively restrict emissions (Kolk & Pinkse, 2007; Levy & Egan, 2003). Internal champions are often left to argue against the maximization of short-term profit that typically drives firm decision-making (Wright et al., 2012).

Finally, no central authority exists to deal with climate change. The global response has been likened to "cooperation under anarchy" (Levin et al., 2012: 128), since it requires coordination of different economic sectors, policy jurisdictions, and industries at multiple political levels. Even a global agreement would have insufficient legal authority to address the implications for different states, sub-regional systems, and industry-specific regulations. Corporations thus face a complex external context in responding to this challenge.

Each of these features renders the process of translating climate change into strong corporate responses particularly difficult, since doing so requires purposeful dedication to a strategy in the face of competing critiques in an uncertain environment. In order to better understand how businesses respond to the grand challenge of climate change, we explore how firms engage with competing demands in translating this challenge into practice.

RESEARCH SETTING AND METHOD

Australia provides an ideal setting in which to explore how corporations have responded to climate change. It is one of the world's largest exporters of

coal and natural gas, and has among the highest levels of greenhouse gas emissions per capita among developed economies (Garnaut, 2008). Under conservative government rule from the mid-1990s, Australia adopted a minimalist approach to climate change policy, viewing emissions mitigation as a threat to economic growth and fossil fuel exports (Pearse, 2007). This perspective was evident internationally, in Australia's refusal (along with the United States) to ratify the Kyoto Protocol to the United Nations Framework Convention on Climate Change.

As outlined in Table 1, from 2005–2015, an increasingly partisan political debate raged in Australia over climate change. By 2005–2006, opinion polling revealed that it had become a primary area of public concern, and political parties explored policy responses such as carbon pricing. A change in government in 2007 highlighted this policy shift, with the incoming Labor government led by Prime Minister Kevin Rudd finally ratifying the Kyoto Protocol and committing to the introduction of a carbon emissions trading scheme (ETS). This policy focus coincided with unprecedented extreme weather events, including the "Black Saturday" bushfires in Victoria in February 2009 in which 173 people lost their lives (Head, Adams, McGregor, & Toole, 2014).

However, failure to reach a global agreement at the 2009 United Nations Climate Change Conference in Copenhagen, conservative political opposition, and growing resistance from industry led to the deferral of emissions trading. Narrowly holding on to power in the 2010 federal election, the minority Labor government under Prime Minister Julia Gillard announced the introduction of a fixed carbon price as a prelude to a carbon trading system (Commonwealth of Australia, 2011). Opposition political parties, with backing from the media, right-wing think tanks, and industry groups, launched a highly effective public campaign against what was dubbed a "toxic carbon tax" (Manne, 2011). This proved to be a key factor in the defeat of the Gillard government in the 2013 election, after which, under the conservative leadership of Prime Minister Tony Abbott, climate policies were disbanded and Australia became the first developed nation in the world to abolish a price on carbon emissions.

Within this fractious political context, Australian businesses sought to navigate not only the uncertain regulatory context around carbon pricing, but also the risks and opportunities that might come from moving toward a future low-carbon economy. Companies that had previously taken widely divergent

TABLE 1
Context of Australian Climate Change Debate, 2005–2015

Date	Developments
Nov. 24, 2007	Federal election: An Australian Labor Party government led by then-Opposition leader Kevin Rudd is elected
Dec. 12, 2007	Australia ratifies the Kyoto Protocol
Sept. 30, 2008	The final report of the Garnaut Climate Change Review is released, advocating for the introduction of an ETS (Garnaut, 2008)
Feb. 7, 2009	“Black Saturday” bushfires in Victoria (173 deaths); public debate ensues over links to climate change
May 14, 2009	ETS legislation introduced into Parliament
Dec. 18, 2009	The 15th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change concludes in Copenhagen without a binding agreement on climate action
Feb. 2, 2010	ETS legislation is rejected in Parliament
Apr. 27, 2010	Government delays the introduction of carbon pricing until the end of 2012
Aug. 21, 2010	Federal election: The Australian Labor Party, led by Prime Minister Julia Gillard, retains power in a minority government alliance with three independent MPs and one Australian Greens MP
Dec. 2010–Jan. 2011	Floods in Queensland affect 90 towns and more than 200,000 people. Direct damage is estimated at A\$2.4 billion, with 38 fatalities. Debate ensues over climate change links
Nov. 8, 2011	ETS legislation passed by Parliament
July 1, 2012	Carbon pricing comes into effect
Jan. 2013	Climate Commission publicizes Australia’s “Angry Summer” (123 weather records broken over a 90-day period, including the hottest January on record)
Sept. 18, 2013	Federal election: the center-right Liberal/National Coalition wins and assumes power under then-Opposition leader Tony Abbott
Sept. 19, 2013	Abbott Government abolishes the Climate Commission
Nov. 13, 2013	Abbott Government introduces repeal bill for ETS and carbon pricing
Jan. 2014	Australia’s second “Angry Summer” (150 temperature records broken over 90 days)
July 17, 2014	Repeal of carbon pricing passed by the Senate

Note: ETS = emissions trading scheme.

stances on climate change began to develop climate-change specific strategies.

The Study

This paper is part of a larger research project initiated by the authors in 2009 exploring the strategies and practices businesses have developed in responding to climate change (for a summary, see Wright & Nyberg, 2015). Through interviews with executives, specialist managers, industry groups, and consultants in a range of large Australian corporations, we identified how business responses to climate change involved both external political engagements (Nyberg, Spicer, & Wright, 2013; Wright & Nyberg, 2014) as well as internal strategies and practices aimed at improving eco-efficiency, developing new products and services, green workplace cultures, and marketing themselves as environmentally responsible organizations. The initial focus of the project centered on how individual actors (Wright & Nyberg, 2012; Wright et al., 2012) and firms (Nyberg & Wright, 2012, 2013, 2016) struggled with the challenge of climate change.

However, an emerging theme from our earlier research was how initially strong corporate engagement

with the issue of climate change dissipated over time as contextual and internal dynamics changed. This led to a new research focus; specifically, how corporations engaged longitudinally with social and environmental challenges in response to competing pressures. To more fully explore this temporal adaptation in corporate climate response, we expanded our earlier research and focused specifically on five firms as longitudinal and comparative case studies. This involved extending our data collection by conducting follow-up interviews with key informants in each organization to capture recent developments and relate back our earlier findings, and gathering archival data and a comprehensive collection of media releases from each organization over the time period of our investigation. This additional data collection allowed us to create five in-depth case studies of major Australian corporations from different industries over a 10-year period (2005–2015). In responding to the new research focus, we conducted a new process of comparative data analysis, from which we developed a model of the corporate translation of grand challenges over time.

As outlined in Table 2, the five case organizations included a leading energy producer that was supplementing coal-fired power with renewable energy

TABLE 2
Corporate Case Studies

Case	Industry	Employees (AUS)	Description of climate change engagement
EnergyCo	Electricity and gas	1,500	<ul style="list-style-type: none"> • One of the country's largest greenhouse gas emitters • Rebranded itself in 2005 as a "green" energy company • Invested in renewable energy generation (hydro, wind, and solar) to supplement aging coal-fired power stations • Began to advocate strongly for an ETS and redesigned business processes for carbon pricing in 2009
FinanceCo	Banking	36,000	<ul style="list-style-type: none"> • One of Australia's largest financial institutions • Focused on environmental reporting since the mid-1990s and began to advocate strongly for climate science and government pricing of carbon emissions in 2006 • Established carbon trading and began to price carbon risk in institutional lending in 2009
GlobalCo	Manufacturing	5,600	<ul style="list-style-type: none"> • New global CEO launched a focus on eco-innovation in 2004 • Established targets for eco-innovation R&D, sales from eco-products, and reductions in carbon emissions and water usage • Developed eco-innovation challenges with partner organizations
InsureCo	Insurance	15,000	<ul style="list-style-type: none"> • In 2001, a new CEO focused corporate strategy on sustainability and climate change • Operationalized through R&D into climate change and extreme weather events in terms of insured risk • Began to advocate strongly for government action on climate change and carbon pricing in 2006
MediaCo	Media and communications	8,000	<ul style="list-style-type: none"> • CEO launched focus on climate change in 2007 • Emphasized reducing the company's carbon footprint and improving energy efficiency • Implemented a culture change initiative aimed at achieving carbon neutral status

(hereafter, "EnergyCo"), a major financial services company that was factoring a price on carbon into its corporate lending ("FinanceCo"), a global manufacturer that was reinventing itself as a green producer of renewable energy technologies ("GlobalCo"), a large insurer focused on the financial implications of extreme weather events ("InsureCo"), and a global media company that had embarked on an eco-efficiency drive to become carbon neutral ("MediaCo"). The cases were theoretically sampled for their strategic engagement with climate change (Yin, 2003), and from different industries to yield more generalizable explanations of patterns and relationships across the cases (Eisenhardt & Graebner, 2007). This strategic focus helped us formulate a theoretical explanation of the process, and the companies' distinct actions strengthened our conclusions (see Table 2 below).

Data Collection

The first stage of data collection involved a systematic review of publicly available sustainability

reports, web pages, and presentations from each company, which resulted in an extensive collection of textual data (see Table 3). To provide contextual detail for the longitudinal analysis in this paper, we extended the document data collection back to 2000, in order to trace changes in corporate leadership and understand the pre-history of these companies' engagement with climate change discourse.

A second stage of data collection began in 2010, when, as part of our broader research project, we performed semi-structured interviews with a range of managers from the five corporations, including sustainability specialists, senior managers, and operational managers (see Table 3 for details). We interviewed members from each organization during the period 2010–2014 in order to understand change and continuity in organizational practices and thinking. During these interviews, we asked each respondent to reflect on the historical context of the company's engagement with climate change before exploring the company's current climate change responses. For the longitudinal and comparative

TABLE 3
Data Source Material

Organization	Interviews	Documents
EnergyCo	19 interviews; 412 pages of transcript 01 Lead of Electricity Workstream; 02 Business Partner, People and Culture; 03 Sustainability Manager; 04 Manager, Sustainability Strategy; 05–06 Business Customer Commercial Manager; 07 Manager, Greenhouse Reporting; 08 National Sales Manager; 09 Manager, Economic Policy & Research; 10 Chief Economist and Head of Corporate Affairs; 11 Environmental Reporting Advisor; 12 Head, Wholesale Electricity; 13–14 Head, Carbon Price Implementation; 15–19 Head of Sustainability	Sustainability reports, 2006–2014; Carbon Pollution Reduction Scheme submission; strategy and greenhouse gas policy documents (51 documents; 420 pages); media releases (49 documents; 61 pages)
FinanceCo	14 interviews; 350 pages of transcript 01–04 Advisor, Group Sustainability; 05–08 Director, Emissions & Environment; 09 Director, Carbon & Energy Project Finance; 10 Senior Manager, Corporate Affairs & Sustainability; 11 Head of Agribusiness; 12 Director, Carbon, Corporate & Institutional Banking; 13 Director, Infrastructure & Utilities; 14 Manager, Group Sustainability	Sustainability reports, 2007–2014; Carbon Pollution Reduction Scheme submission; financing sustainable energy; climate change policy documents (28 documents; 295 pages); media releases (52 documents; 65 pages)
GlobalCo	10 interviews; 157 pages of transcript 01 Head of Business Development & Strategic Planning; 02–03 Commercial Director and Eco-Products Leader AUS/NZ; 04 former Head of Eco-Products AUS/NZ; 05 Global Director, Eco-Products; 06 Smart Grid Business Leader; 07 Corporate Communications Director; 08 Vice Chairman; 09 Vice President, Operations; 10 CEO AUS/NZ	Eco-products annual reports, 2008–2013; marketing and media reports (48 documents; 246 pages); media releases (28 documents; 33 pages)
InsureCo	11 interviews; 321 pages of transcript 01 former Sustainability Manager; 02 former Strategy Director; 03 Senior Advisor, External Relations; 04 former Director; 05 Manager, Natural Perils; 06 Senior Specialist, Sustainability; 07–08 Business Sustainability Manager; 09 former Sustainability Research Manager; 10 former Group Executive, Culture & Reputation; 11 former Chief Risk Officer	Annual reviews and sustainability reports, 2006–2014; environmental sustainability policy documents; PowerPoint presentations (28 documents; 35 pages); media releases (21 documents; 29 pages)
MediaCo	16 interviews; 389 pages of transcript 01 Editor in Chief; 02 Press Crew Supervisor; 03 Managing Editor; 04 General Manager; 05 Procurement Manager; 06 Creative Director; 07 Human Resources Director; 08 Director of Corporate Affairs; 09 Group Organization Development Manager; 10 Human Resources Manager; 11 Communications Manager; 12–15 Manager, Environment & Climate Change; 16 Assistant Manager, Environment & Climate Change	Energy Reduction Plans, 2009–2013; Carbon Pollution Reduction Scheme submission; CEO climate change statement; company energy initiative statements; PowerPoint presentations; staff survey reports (55 documents; 337 pages); media releases (17 documents; 28 pages)
Total	70 interviews; 1,629 pages of transcript	377 documents; 1,819 pages

aspect, we conducted 10 follow-up interviews with key informants during 2015 to relate back our findings to case study participants and confirm the latest developments in each organization (for a total of 70 interviews). Each interview lasted between 50 and 120 minutes and was recorded and fully transcribed, providing a rich and extensive source of qualitative data (amounting to more than 1,620 pages of transcript).

In building each case study, we also accessed an extensive range of private documentation, including corporate strategy and policy documents, PowerPoint presentations, communications, training documents, and submissions to the government on proposed carbon regulation. In order to understand how the five cases responded to external pressures in regard to their activities, we conducted a comprehensive search of all media releases from the five

organizations over the period 2005–2015, collecting any documents that mentioned “climate change,” “environment,” or “sustainability” during this period. We thus compiled an additional body of textual data (172 media releases) across the 10-year time period, and included this in our analysis (see Table 3).

Data Analysis

The first stage of data analysis involved a detailed reading of the collected textual material (interview transcripts, corporate documents, and media releases) across the five cases. Through this process, we developed case histories and timelines of the organizations and their climate change practices, which we compared with the recent history of Australian and international climate policy. As we mapped key dates and milestones over time, two consistent themes emerged across the cases: (1) initially, companies made strong and diverse commitments to address climate change, and (2) their efforts waned over time into “business as usual.” As we delved into the B&NE literature to understand these emerging themes, we found explanations for corporate engagement with climate change, but limited explanations concerning how strong commitments are incorporated yet eventually dissipate within conventional business practice.

During the second stage of the data analysis, we returned to the empirical material and performed a process of “open coding” (Corbin & Strauss, 1990). Using the qualitative data analysis software NVivo (QSR International), we coded for empirical themes around the practices, strategies, narratives, and discourses we had identified in the text. Initially, the process of labeling terms and phrases in the empirical material was performed “in vivo” (Locke, 2001). After reading the data multiple times, we combined segments of text reflecting similar wordings or activities into first-order categories, resulting in the classification of more than 60 primary nodes. These nodes represented engagement with climate change (e.g., “business case,” “innovation,” or “risk”), descriptions of activities and practices (e.g., “eco-efficiency,” “carbon pricing,” or “new products and markets”), and changes in approach (e.g., “back to basics,” “expanded focus,” and “leadership change”). Building from these initial first-order codes, we then coded for similarities and differences across the five cases to discern the main categorization of climate change in the empirical material.

In the third stage, we used second-order or axial coding to search for patterns and relationships within and between the first-order categories and the case studies (Strauss & Corbin, 1998). We combined the categories into themes explaining how they related to corporate activities and practices across the five cases. Through this analysis, we arranged the nodes we had identified in our initial open coding within broader, conceptually informed categories. We identified a range of higher-order concepts related to the different processes and practices through which companies engaged with climate change, including ruling particular understandings of climate change in or out (“association” and “disassociation”), developing roles, products, and services (“incorporation”), transforming different qualities into a common metric (“commensuration”), promoting and marketing eco-business activities (“proselytization”), reemphasizing the dominant discourse of value creation (“purification”), and broadening corporate sustainability objectives beyond climate change (“dilution”).

In the fourth stage, we applied these concepts back to our case histories of the five organizations in order to discern how corporate responses to climate change changed over time. By mapping the second-order themes to the case history timelines, we identified three stages of the translation process: (1) framing, (2) localizing, and (3) normalizing. In the first stage, “framing,” senior managers acted as interpreters, defining climate change as an important issue for their organizations that was compatible with their business interests. The second stage, “localizing,” involved senior and middle managers making new framings locally relevant by aligning the challenge of climate change with local practices. The third stage, “normalizing,” involved decision-making throughout the firms that realigned earlier climate change initiatives with the dominant organizational discourse of maximizing shareholder value. We detail the coding frequencies for each of these concepts in each case over different time periods in Table 4.

Since these three stages were common to all five cases, we were able to compare process dynamics over time (using matrix coding queries in the NVivo software). Figure 1 represents the data structure that emerged from our analysis of how the case study corporations responded to climate change, illustrating the first-order categories, the second-order themes, and the aggregate dimensions that served as the foundation of corporate responses to climate change (Gioia, Corley, & Hamilton, 2013). Matching

TABLE 4
Data Coding by Stages, Cases, and Time Periods

	Coding references <i>n</i> (%)			
	2004–2006	2007–2009	2010–2012	2013–2015
<i>Framing</i>				
EnergyCo (2005–2008)	17 (20)	37 (45)	26 (31)	3 (4)
FinanceCo (2005–2008)	29 (22)	59 (46)	37 (29)	4 (3)
GlobalCo (2005–2007)	34 (28)	49 (40)	36 (30)	2 (2)
InsureCo (2001–2005)	63 (74)	15 (18)	7 (8)	0 (0)
MediaCo (2007–2008)	0 (0)	42 (75)	14 (25)	0 (0)
<i>Localizing</i>				
EnergyCo (2009–2012)	6 (10)	14 (22)	41 (65)	2 (3)
FinanceCo (2008–2014)	4 (2)	38 (23)	110 (67)	13 (8)
GlobalCo (2007–2012)	14 (8)	56 (30)	102 (55)	13 (7)
InsureCo (2005–2008)	81 (74)	12 (11)	12 (11)	4 (4)
MediaCo (2008–2011)	0 (0)	21 (20)	76 (72)	8 (8)
<i>Normalizing</i>				
EnergyCo (2012–2015)	0 (0)	0 (0)	28 (45)	34 (55)
FinanceCo (2014–2015)	0 (0)	0 (0)	11 (24)	35 (76)
GlobalCo (2012–2015)	2 (2)	3 (4)	18 (22)	58 (72)
InsureCo (2008–2015)	0 (0)	32 (52)	16 (26)	14 (22)
MediaCo (2011–2015)	0 (0)	0 (0)	7 (24)	22 (76)

these against the coding frequencies (see Table 4) confirmed that the process has three distinct stages that varied in timing between the cases. However, while grounded coding describes the process over time, it does not offer an explanation of *how* the five firms moved through the stages.

Finally, using the aggregate dimensions of the three stages as a foundation, we returned to the case histories to identify when and why firms moved between the different stages and altered their activities and practices. This enabled us to map key events in the case histories to how organizations responded to the critiques and pressures originating from socio-political and intraorganizational contexts. While the grounded coding provided the aggregate dimensions, the longitudinal aspect enabled us to identify and compare how the cases moved from one stage to another. In Table 5, we list definitions of the key concepts identified in our data analysis, and, in Figure 2, we provide a simplified illustration of how the grounded analysis maps onto the case histories in explaining how the grand challenge of climate change was translated into “business as usual.”

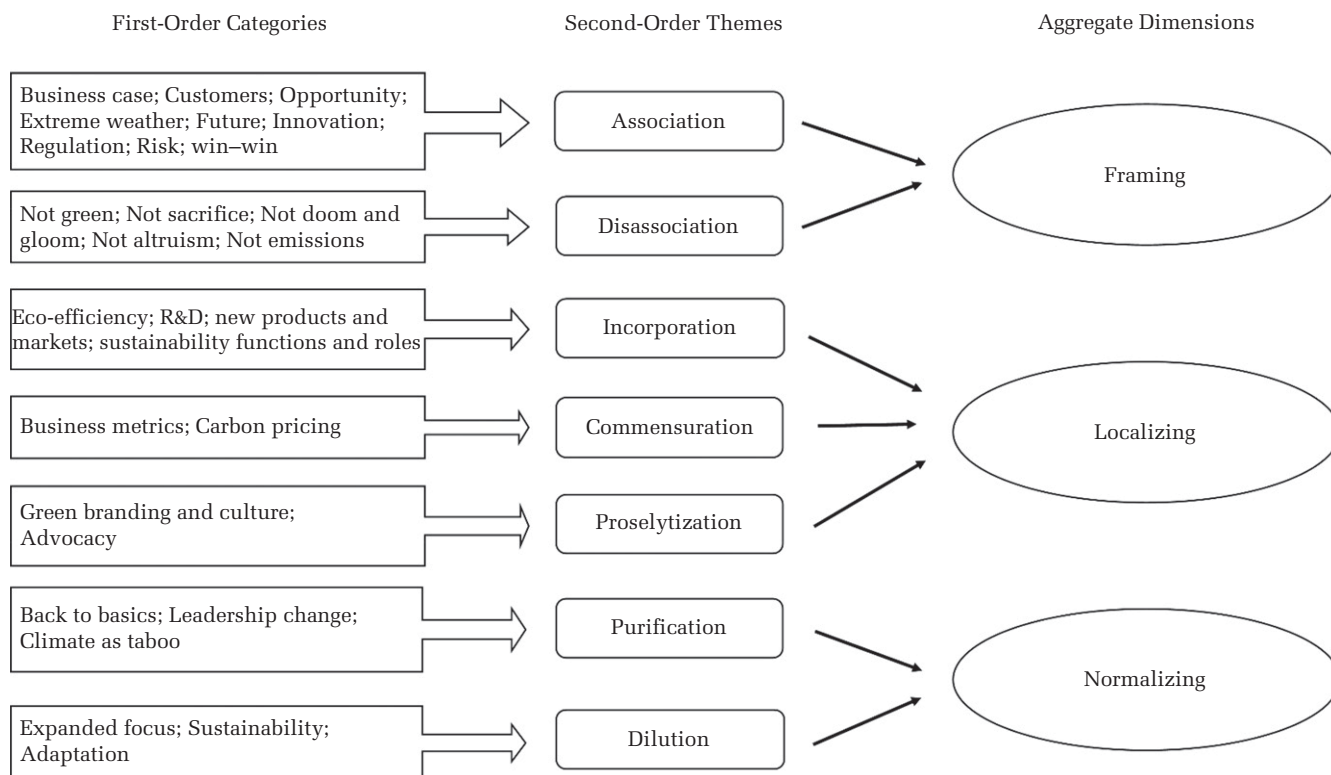
As we describe in detail in the following sections, the key driver of change among the three stages was critiques from different stakeholders (such as shareholders and financial analysts, the media, customers, employees, NGOs, and the public) who drew upon various market and social/environmental discourses in responding to each firm’s climate change

initiatives. Thus, firms initially engaged with climate change in response to the public critique that business was a key contributor to the climate crisis. These firms sought to overcome the “tension” between the conflicting objectives of business as usual and the grand challenge of climate change by “framing” the issue as business friendly, thereby making competing interests appear compatible. However, this led to further criticism and new tensions in the form of “dissonance” between corporate framings and their local activities and practices. This led to our second stage of translation, “localizing,” in which managers created local conventions that sought to satisfy the opposing goals of business growth and environmental well-being. Creating roles, practices, and products, however, set in motion an “evaluation” process for these conventions, particularly from a market discourse perspective. This triggered a third stage, “normalizing,” in which prior initiatives were purified or diluted within other activities to provide clearer commercial returns. In each case, we found that the meaning and practice of corporate engagement with climate change steadily diminished and narrowed.

FINDINGS

In the following sections, we summarize key patterns and significant events that unfolded between 2005 and 2015 in each of the five case study

FIGURE 1
Data Structure



organizations. We provide representative supporting data for the second-order themes of the three stages of framing, localizing, and normalizing, as well as the tension, dissonance, and evaluation that the firms responded to (see Tables 6, 7, and 8, below). The timing and content of the three stages differed for each firm based on specific critiques and pressures from internal and external stakeholders (see Figure 2 and Table 5).

Framing Climate Change as a Business Concern

Each of the five companies engaged with the issue of climate change during the early to mid-2000s as a result of different external and public critiques. For instance, at EnergyCo, a new cadre of senior managers was aware of growing public pressure for low-emissions energy production and the likelihood of government regulation of carbon emissions in the near future. Indicative of this change in thinking, in 2005, the company commissioned a joint report with an environmental NGO on low-emissions energy production. This led the company to focus on diversifying its energy production portfolio toward

renewable energy sources. In its 2006 Sustainability Report, the company emphasized that “climate change is a critical issue facing us today, and [EnergyCo] accepts the scientific consensus that greenhouse gases in our atmosphere need to be stabilised so as to avoid ‘dangerous’ climate change.”

For FinanceCo, engagement with climate change was a response to recent banking scandals and negative public sentiment toward financial institutions. In 2005, FinanceCo’s then-CEO joined with several other corporate executives to form a Business Roundtable on Climate Change, which commissioned research and advocated for government action to reduce greenhouse gas emissions. Indicative of its growing focus on this issue, in 2008, FinanceCo released a Climate Change Position Statement that asserted: “There is little doubt that climate change is one of the defining issues of our time . . . We believe that climate change will have significant economic, social, and environmental impacts in the regions where we operate.”

At GlobalCo, climate change formed a central part of the story through which the new global CEO sought to reinvent the company and respond to the firm’s negative public image as a large, uncaring, and

TABLE 5
Key Concepts in the Organizational Translation of Climate Change

Concept	Definition	Application to climate change as a grand challenge
Tension	Pressure resulting from engaging with an issue that poses competing goals and interests for an organization	How to make the interests of the business compatible with the implications of climate change?
<i>Framing</i>	Interpreting, defining, and communicating an issue in order to gain the support of external and internal stakeholders	How to understand the challenge of climate change as a business issue?
Association	Ruling in particular understandings when combining discourses	Linking climate change to preferred issues (e.g., a defined business case), managing risks, and maximizing opportunities and win-win outcomes
Disassociation	Ruling out undesirable features of combined discourses	Rejecting certain themes when engaging with climate change (e.g., sacrifice, the need for regulation, doom and gloom prognoses, or purely environmental concerns)
Dissonance	Criticisms of the discrepancy between initial framing and practice	How to respond to social/environmental and market critiques of the organization's framing of climate change as an important business issue?
<i>Localizing</i>	Making new framings locally relevant through conventions that find compromises between competing goals	How to align the challenge of climate change with local practices?
Incorporation	Developing new roles, capabilities, products, and services	New sustainability roles, products, and services that link business success with environmental well-being
Commensuration	Transforming different qualities into a common metric	Savings from reduced energy consumption, measures of increased employee engagement, sales figures from new green products and services, carbon pricing
Proselytization	Promoting and marketing activities for external and internal audiences	Employee communications and culture change programs, marketing of carbon neutral status, public advocacy for emissions trading, alliance building with NGOs and government
Evaluation	A further critique of local conventions by evaluating the practices in accordance with social/environmental or market discourses	How local responses to climate change satisfy the demands of shareholder value creation?
<i>Normalizing</i>	Realigning practices and activities with dominant organizational discourses	How to adapt earlier climate change initiatives in order to maximize shareholder value?
Purification	Reemphasizing the local and singular dominant discourse	Back to basics approach, winding back of eco-initiatives and climate advocacy
Dilution	Broadening the focus and objectives to include other concerns	Widening of sustainability efforts beyond climate, including environmentally harmful but profitable activities

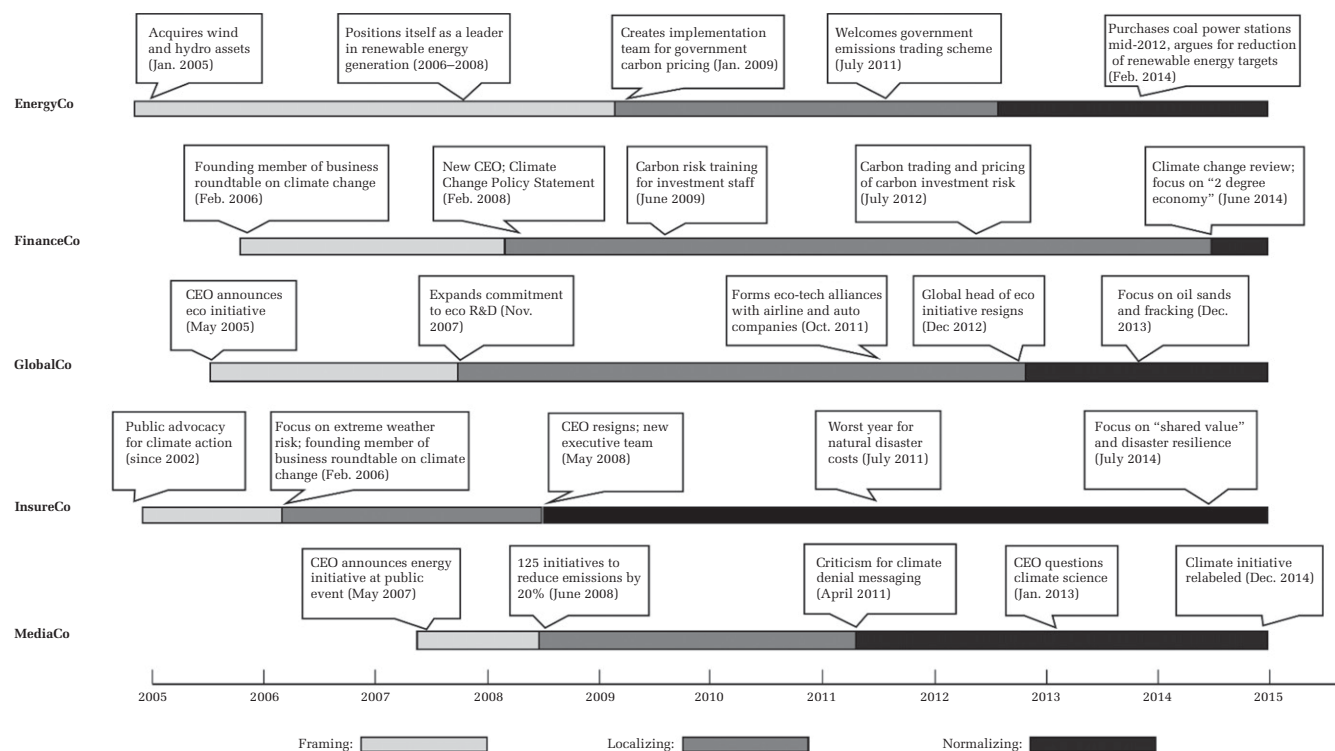
environmentally destructive multinational. He identified various “megatrends” that he believed would be central to the growth of the business into the 21st century and could provide a more positive public image.

We started to look hard at sustainability and climate change in 2004 when we set up an internal debate between two teams of PhDs from our research labs . . . [The CEO] listened to them debate it and concluded, based on the science, that climate change is real and caused by man.

(GC Global Sustainability Manager, speech, May 2011)

From a somewhat different angle, InsureCo's focus on climate change evolved in reaction to shareholder criticism following a series of storms, bushfires, and a major drought that resulted in significant claim payouts for the company. The chief risk officer explained: “We were slowly getting more weather-related events and bigger claims in weather-related events and it was costing us more money.” A new CEO was hired in 2001, and attention shifted to the risks of climate change in upsetting traditional models of insured weather risk. As one of the company's former sustainability managers recalled, “[The CEO] used to joke about how lucky he was that

FIGURE 2
Climate Change Translation within Corporations



he'd had three 1 in 100 year events in his first six months at [InsureCo]! It just continued to focus the lens on just how important climate change should be to insurers.” (IC01)

At MediaCo, engagement with climate change revolved around a public event in the United States in 2007, where, after hearing from other business leaders and prominent climate activists, the global CEO decided “to give the planet the benefit of the doubt” and announced his company’s implementation of a global energy initiative.

Thus, in each company, senior managers embraced the topic of climate change largely in response to growing social and environmental criticism of business activities, as well as perceptions of a changing regulatory and physical context. However, engaging with the issue of climate change also highlighted the underlying tension between existing business models and the challenge of decoupling economic growth from its material impacts. In responding to this tension, senior managers in each organization engaged in a process of framing to make competing interests appear compatible and relevant in their organizational settings.

Senior managers associated climate change with specific meanings and issues while ruling out more

negative or threatening understandings (see Table 6). For example, at GlobalCo, climate change was strongly associated with “innovation,” “customers,” and “opportunity.” As one of the world’s largest manufacturers of industrial products, GlobalCo’s managers emphasized how a focus on new clean technologies offered a way not only to respond to market and regulatory risks, but also to take advantage of emerging opportunities. Moreover, this particular framing promoted a vision of returning the company to its roots as a source of industrial innovation, and responded to social and environmental criticism by highlighting the positive social role of the company in providing a more environmentally sustainable future for all.

By contrast, at EnergyCo, climate change was framed by senior managers around business issues of regulation and risk. The core narrative focused on the changing regulatory context in which a government-introduced emissions trading system was keenly anticipated. Indeed, the company had begun to invest in low-emission renewable energy generation in expectation of a shift to carbon trading, and began to emphasize its future role in transitioning the country toward a renewable energy future.

TABLE 6
Framing Stage of Climate Change Translation

Organization	Enactment	Indicative Examples
EnergyCo	Tension	"It [carbon regulation] has been spotted as a very big risk to our industry. What we'd call internally a 'slow-burn mega shot.' Take a long time to turn up; when it does, <i>kerpow!</i> So, once you work out what's inevitable, then you need to start preparing for it." (EC10)
	Association (business case)	"[EnergyCo] commands significant market leadership in the renewable generation space in Australia, with its existing and planned assets positioned to deliver immediate value upside under a carbon-constrained environment." (EC press release, March 2008)
	Disassociation (reducing emissions)	"That kind of response [advocating for renewable energy] is going to have a far greater impact on the country and the world's ability to respond to the issues of climate change than us putting a target in to reduce emissions by 10% from our power stations." (EC04)
FinanceCo	Tension	"Part of the reason why we went down this path was because there was a realization that we were incredibly out of step with stakeholder expectations." (FC01)
	Association (leadership)	"As a financial institution with relationships right across society, we will play a pivotal role helping our customers, employees, and the broader community shift to this low-carbon economy." (FC Climate Change Position Statement, 2007)
	Disassociation (sacrifice)	"It is easy to dwell on the challenges, but we do believe that there are exciting opportunities for companies with the courage to reach out and grasp them." (FC Climate Change Position Statement, 2007)
GlobalCo	Tension	"My environmental agenda is not about being trendy or moral. It's about accelerating economic growth." (GC CEO, 2006)
	Association (new opportunities)	"Why? Because developing a cleaner, more secure, more efficient infrastructure isn't just a responsibility—it's an opportunity to solve new requirements for productivity in some of the world's largest markets; it will deliver big results for us and for any other smart, forward-looking company." (GC Global Sustainability Manager speech, May 2011)
	Disassociation (green)	"[Focusing on climate change] was too precious and it let opponents think that, if you had a green initiative, you didn't care about jobs." (GC CEO, 2011)
InsureCo	Tension	"What will we do? What will happen? Long term, how are we going to manage the risk around? You can't just extract yourself from those markets." (IC01)
	Association (extreme weather)	"We were slowly getting more weather-related events and bigger claims in weather-related events and it was costing us more money." (IC11)
	Disassociation (altruism)	"You're asking him or her to do something that seems to be altruistic, and we're back in this debate about, 'Hang on, that's not our responsibility.'" (IC10)
MediaCo	Tension	"Our audiences—hundreds of millions of people on five continents—care about this issue." (MC CEO, Energy Statement, 2007)
	Association (win-win)	"Of course it saves money. So it has some very positive business side effects as well as doing the right thing." (MC08)
	Disassociation (regulation)	"So far, business has done more than government [on climate change] . . . anything that's happened in Australia has generally been because business has done something." (MC15)

FinanceCo also associated climate change with risk and opportunity, based on the likely introduction of government-mandated emissions trading and reputational threats in the form of criticism from NGOs and community members about the organization's financing of fossil-fuel developments such as coal mines and power plants. Rather than shying away from an association with climate change, strategic documents at FinanceCo highlighted the leadership role it would play in educating customers and

wider society about opportunities in an increasingly carbon-constrained world.

MediaCo also framed climate change within a risk discourse. As the company's CEO proclaimed in launching his company's climate and energy initiative in 2007, "Climate change poses clear, catastrophic threats. We may not agree on the extent, but we certainly can't afford the risk of inaction" (MC CEO, Energy Initiative Statement). However, the call for action was also associated by managers and in

TABLE 7
Localizing Stage of Climate Change Translation

Organization	Enactment	Indicative Examples
EnergyCo	Dissonance	"How do we best maximize for our customers and for [EnergyCo] the value of the carbon price?" (EC05)
	Incorporation (new products and markets)	"We've been out there building wind farms, getting a lot of development sites, and working on that policy response." (EC04)
	Commensuration (business metrics)	"We'd done a lot of in-house analysis, lots and lots of modeling. We've got a massive carbon team that does modeling on the impacts of Carbon Pollution Reduction Scheme." (EC04)
	Proselytization (advocacy)	"As Australia's largest energy retailer, we have continually advocated policies that deliver increased clean energy production and lower greenhouse gas emissions." (EC Sustainability Report, 2008).
FinanceCo	Dissonance	"You don't want to carve yourselves out of something that actually makes sense . . . That is at odds with the economic outcomes of some of my clients in the mining sector for example." (FC09)
	Incorporation (new products and markets)	"The second part of it is we actually need a bespoke product that will help them through this new area or this new transitional period. The carbon forestry is a good example of that one." (FC06)
	Commensuration (business metrics)	"When our customers ask, we can point [to] them and say we're trading carbon. We can explain how the markets are working. We make a price on carbon and we publish a price on carbon." (FC13)
	Proselytization (green branding)	"One of the single biggest things you can do to—from a reputation point of view—is position yourself as a leader, have senior people talking about the issues." (FC03)
GlobalCo	Dissonance	"I think some people thought it was too soft. GlobalCo's an edgy company; this is a little bit of a soft initiative." (GC CEO, 2008)
	Incorporation (eco-efficiency)	"While we've made terrific progress reducing our own environmental impact, we're now committing to make our company twice as energy efficient by 2015." (GC Sustainability Report, 2009)
	Commensuration (business metrics)	"As with all initiatives at GlobalCo, we placed bold business metrics around it. We executed against these metrics and delivered." (GC Sustainability Report, 2009)
	Proselytization (green culture)	"We've now got groups of employees suggesting new ideas and it's great for employee buy-in and it's great from an HR perspective of the employee value position . . . You can get the best people without paying best dollars." (GC02)
InsureCo	Dissonance	"We've had some quite interesting discussions internally around ethically it might be right to offer X, but, actually, from a profitability perspective, we're not making so much money." (IC07)
	Incorporation (R&D)	"At present, [InsureCo] is continuing its pioneering hailstorm modelling work and keeping abreast of any advances in scientific understanding of extreme events and climate change. Significant investment in research will lead to improved understanding of the changing risk and will help to maintain a viable industry." (IC Climate Change Report)
	Commensuration (business metrics)	"From people selling insurance at branches right through to CEOs, we needed to have clear [key performance indicators] for everyone on sustainability." (IC01)
	Proselytization (advocacy)	"The stuff we were doing on climate was getting huge traction. Wherever [the CEO] spoke and I spoke, we were being pulled into all sorts of new environments and communities . . . We were talking to the planning industry, we were talking to the building industry, and governments of all kinds were pulling us in." (IC10)
MediaCo	Dissonance	"We realized that we couldn't just go out and say, 'This is what you should be doing,' and preaching. We realized that we had to get our own house in order first." (MC08)
	Incorporation (eco-efficiency)	"[MediaCo's] energy audit program draws on existing management practices, built around our Carbon Councils, which have been established at each business unit." (MC Environment Newsletter, 2010)
	Commensuration (carbon off-sets)	"[MediaCo] is now carbon neutral, as the greenhouse gas emission data has been verified and offsets purchased and retired at the end of 2010 . . . This makes our carbon impact zero." (MC Environment Newsletter, 2010)
	Proselytization (green culture)	"At Carbon Council level, where the enthusiasm is, you get a mixture of drivers, from climate change being the fundamental thing that young people want to see achieved to people simply saying, 'I'm a facilities manager and I want a lower bill on electricity.'" (MC13)

TABLE 8
Normalizing Stage of Climate Change Translation

Organization	Enactment	Indicative Examples
EnergyCo	Evaluation	"In an environment impacted by the high cost of capital, shareholder returns as measured by underlying profit are increasingly important." (EC Sustainability Report, 2013)
	Purification (back to basics)	"I'm not even worried about climate change and how people perceive us on that. I'm going into this with a mindset of customers need to know exactly how much money they're going to save." (EC17)
	Dilution (expanded focus)	"It's definitely a challenge because it [purchase of a coal-fired power station] is a bit of a change from what we've progressed in the past. But there are commercial arguments about the need to balance out our portfolio . . . being too heavily geared in specific types of energy—renewables and so forth. So, it's just about ensuring that the message is meaningful." (EC02)
FinanceCo	Evaluation	"So, some of the business strategies in response to customer needs are playing out differently to what we expected." (FC04)
	Purification (back to basics)	"I don't think we necessarily downsized the team, but we put them onto other commodities of trading. So, some of the lay knowledge is still there, but they're certainly not actively doing what they were years ago because there's no market." (FC04)
	Dilution (sustainability)	"We support the shift to a more sustainable economic model that is less dependent on fossil fuels while recognizing the importance of responsibly managing the transition to support sustainable economic development." (FC Climate Policy, 2014)
GlobalCo	Evaluation	"But, when the numbers started not being so good . . . Suddenly, they needed to reduce a lot of corporate costs because the sales weren't there." (GC04)
	Purification (climate as taboo)	"I wasn't allowed to use the word 'green' toward the end." (GC04)
	Dilution (expanded focus)	"We are believers in the role that technology can play to advance operational efficiencies and improve environmental performance in oil sands." (GC press release, Sept. 2015)
InsureCo	Evaluation	"When you were sitting in strategy, you thought that's a bit of a stretch of the business to say its sustainability is good business because it's all about sustaining shareholder value and paying dividends in the future." (IC02)
	Purification (leadership change)	"I think it was the combination of they lost confidence in his [the CEO's] ability to get growth out of the business. They associated him too strongly with being an environmental climate change leader, and shouldn't he just be focusing on getting growth and returns?" (IC01)
	Dilution (sustainability)	"It was not just around climate change, but it sort of morphed into a sustainability message and then that morphed into a waste reduction message. There were all sorts of initiatives that people then started to take that basically resulted in the company saving money." (IC11)
MediaCo	Evaluation	"There are other things now that are far more pressing to people than the environment. People are more concerned about the cost of living and how they're going to pay their mortgage and how they're going to afford their bills." (MC08)
	Purification (back to basics)	"I don't see much at all happening right now; at the time, it was great, there was a lot of push, people were talking about it. But now it's fizzled pretty well right off." (MC02)
	Dilution (expanded focus)	"What we've talked about for the last six months is how we broaden [the initiative] to engage broader sustainability issues aside from just climate change, and that fits with the goals that the [global company] have set us." (MC13)

strategy documents with the social role the company would play in promoting improved energy efficiency and the business advantages of reduced energy consumption.

Finally, at InsureCo, climate change was linked to the specific language of "extreme weather." As one of

the country's largest general and commercial insurers, changing weather patterns were readily understandable within the framing of insurable and uninsurable risk. At the same time, senior managers stressed the social role they could play in providing leadership on climate change action. As the

company's former sustainability manager outlined, "The environment became important to us because socially it was the driving issue of the community . . . the community was saying, 'We need leadership on climate change.'"

However, framing also disassociated climate change from "doom and gloom" interpretations that challenged business growth and corporate expansion. In a classic enunciation of the win-win ethos, GlobalCo's global sustainability manager said, "I can't stress this enough. We're eliminating the false choice between great economics and the environment. We're looking for products that will have a positive and powerful impact on the environment and on the economy" (GC Global Sustainability Manager, speech, May 2011). Yet, for particular industry sectors, some framings were seen as more applicable than others. At EnergyCo (unlike MediaCo), for example, the link between climate change and emissions reductions was explicitly rejected, given the company's reliance on increasing electricity usage. As the sustainability manager explained, "Our goal is to get more customers, which means we're selling more energy. So that kind of emission reduction target isn't actually the most effective way that we can contribute to dealing with climate change" (EC04).

Thus, in this initial stage of framing, senior managers developed arguments that are common in the "green business" literature: climate change is a strategic business issue providing both business risks and win-win opportunities, and companies have a responsibility as social leaders to respond to environmental challenges. The framing was produced through association and disassociation, by which actors ruled in particular concerns that were organizationally salient and ruled out alternative interpretations that challenged existing business models. As shown in Table 6, these variations were shaped by each organization's business and industry context.

Localizing the Framing in Practice

While framing was the first stage in the translation of climate change within corporations, new critiques from both market and social/environmental discourses created additional tensions and dissonance. Convincing stakeholders of the benefits of "greening" initiatives was never assured, and, in some cases, critiques evolved among employees who felt their organizations' environmental efforts lacked sincerity. For example, FinanceCo's sustainability

manager confided that a plan to switch the car fleet to hybrid vehicles provoked employee outrage on the company intranet, as it was seen as a form of "greenwashing": "So, yes, they [employees] definitely hold us to account. They're our toughest critics by far." (FC01)

The dissonance between the framing of climate change and corporate practices was also critiqued in market discourses. For instance, at GlobalCo, the decision to address climate change through "green" innovation led to significant criticism from the company's board of directors and major industrial customers. As the local sustainability manager reflected, "[The CEO] certainly got resistance from customers and others around the place, because it seemed very green . . . there were some that weren't pleased about it" (GC02). FinanceCo faced similar criticism from corporate clients in the fossil fuel sector, who objected to the company's advocacy for carbon pricing. The head of energy project finance explained: "So, the coal mining sector's been really hard on the banks in terms of positions we make on coal. So, there are industry groups with vested interests that are clients of ours, and we have to manage that conflict." (FC09) Broadly speaking, managers from more operational parts of these businesses objected to the focus on climate change as a distraction from core business.

Senior managers responded to critiques by reiterating earlier interpretations of climate change and seeking to make initial framings locally relevant. They highlighted practices that provided a temporary compromise between the competing market and social/environmental discourses. As outlined in Table 7, in this localizing stage of the corporate translation of climate change, the purpose of incorporation, commensuration, and proselytization was to make climate change real and tangible for operational managers through everyday business activities.

Incorporation. A first step in the localization of climate change in the five case organizations involved translating the corporate acknowledgment of climate change into more tangible practices and activities, including, for instance, focusing on the development of new products and services. For example, at GlobalCo, helping "our customers to tackle their most pressing environmental challenges" found ready expression in the development of new "cleantech" products such as wind turbines, solar technologies, and more efficient energy generation.

Beyond a focus on new products and markets, incorporation also involved new activities that improved

eco-efficiency by reducing greenhouse gas emissions and energy usage. This was apparent at MediaCo, where the CEO's initial focus on climate change as an emerging threat was quickly translated to cutting the company's carbon footprint and achieving carbon neutral status. The resulting organization-wide program of eco-efficiency focused on employees finding ways to change production processes in order to reduce carbon emissions.

A further theme in incorporating climate change into practice was the emphasis companies placed on issues of innovation and research and development. Viewing climate change as both a risk and an opportunity drove companies to invest in developing new capabilities that would enable them to better prepare for future possibilities. For instance, InsureCo employed climate scientists and technical experts to model future weather patterns and research the resilience of building construction to threats such as hailstorms and bushfires.

Likewise, specialist sustainability roles and functions were created to oversee new activities and practices. At FinanceCo, a central sustainability team oversaw emissions reporting and provided expert advice on climate risks and opportunities to different operational areas, such as investment banking. A similar model of specialization was evident at EnergyCo, where sustainability managers led the company's investment in renewable energy projects, crafted climate-related internal and external communications, and advised senior managers on potential regulatory changes in emissions trading.

Commensuration. Having made the link between climate change and established business activities, a second element of localizing stressed how these practices could be assessed as meaningful measures of corporate value. As noted above, a common practice focused on eco-efficiency and reducing energy usage, which could be readily translated into cost savings. However, commensuration also involved new measures of corporate value. For instance, at FinanceCo, an internal price on carbon was developed by a project team to factor in the likely future regulatory charge of a certain number of dollars per ton of carbon emissions. This metric was then used in investment decisions and global markets where carbon trading was already established.

While commensuration took diverse forms across the five organizations (e.g., savings from reduced energy consumption, measures of increased employee satisfaction and engagement, sales figures from new "green" products and services, and carbon

pricing), managers were careful to emphasize specific metrics that could justify the investment of time and money in climate change-related activities, specifically in response to market critiques. As GlobalCo's local CEO confided, "I'm going to be real frank here—we're not doing this to save the planet. That's not the driver. We're industrialists." (GC10)

Proselytization. Having identified various activities, practices, products, and metrics for corporate engagement with climate change, a third element of localizing involved communicating these practices and justifying them to a diverse range of stakeholders. Such proselytization took various forms. For instance, at MediaCo, the focus on eco-efficiency resulted in a branded company-wide communication strategy and culture change program that proclaimed that "everybody can make one degree of difference." This was combined with the creation of "carbon councils" among the company's different business units, and staff competitions for improving energy efficiency. As the company's environment manager explained, "That inspires others and it gets things done. It's a fantastic tool. It's how behavioral change happens on sites" (MC15).

Proselytization also involved engagement with external stakeholders, such as customers, clients, NGOs, and political parties. This was particularly the case at EnergyCo and FinanceCo, where the issue of regulatory change had major business implications. Both of these firms became strong advocates for the government introduction of an ETS, which they viewed as critical to providing business certainty for future investment. They communicated this policy stance through workshops, conferences, and external publications. A sustainability manager at EnergyCo explained, "We've been advocating really strongly for things like the Renewable Energy Target, really, really strongly for the CPRS [Carbon Pollution Reduction Scheme] where a lot of our counterparts are silent" (EC04).

Thus, throughout this second stage of localizing, managers sought to align their initial framings of climate change with more specific business activities and practices. As outlined in Table 7, while the five case organizations varied in their emphases, each enacted elements of incorporation, commensuration, and proselytization. Through these activities, corporations could respond to accusations of dissonance or greenwashing by identifying substantive changes in business practices and highlighting how these practices appeared to both provide sound business returns and respond to a pressing social and environmental challenge.

Normalizing Corporate Practices

Localizing the framing of climate change enabled corporations to respond to both market and environmental critiques. However, shifting business fortunes, internal corporate politics, and changes in external political discourses resulted in further criticism. Unlike in earlier stages, market discourses became more dominant, leading to focused evaluations and tests of earlier corporate climate commitments. In particular, shareholders, managers, and financial analysts increasingly questioned the ability of localized activities and practices to satisfy market interests (e.g., reduced costs, increased revenue and profitability). These evaluations led to a new stage of translation that we have termed “normalizing.” In this stage, the temporary compromise between market and social/environmental discourses was broken and corporate executives sought to realign climate initiatives with the dominant market discourse of maximizing shareholder value. Within this stage, we identified two principal activities: purification and dilution (see Table 8).

Purification. One response to the market critique of corporate climate initiatives involved stripping back earlier climate change commitments and reemphasizing the need to respond to traditional drivers such as profit growth, cost reduction, and maximizing returns to shareholders. For example, in 2008, as a result of a failed overseas expansion, stagnant growth, and a falling share price, shareholder criticism led to the resignation of InsureCo’s CEO and the installation of a new executive team to turn the company around. The earlier compromise that climate change actions would pay back in terms of market outcomes had been evaluated and found lacking. The new CEO expressed skepticism about the company’s climate change advocacy, and stressed the need to “get back to basics.” As one of the company’s former sustainability managers recalled, “So, yeah, it was a total refocus . . . Linking it more to the financials, and removing ourselves from the industry bodies around climate change” (IC01). Another former executive described the change in the company’s attitude on climate as follows: “Look, that was all a nice thing to have in good times, but now we’re in hard times. We get back to core stuff.” (IC10)

Internal restructuring and purification was also evident at GlobalCo, where reduced growth forecasts and stagnating sales resulted in major cost cuts in 2012 and a reassessment of the focus on renewable energy and “cleantech” products. Once again,

internal criticism of the company’s eco-initiative and turnover of key senior managers who had championed the climate focus led to a winding back of earlier initiatives. The former sustainability leader explained, “It has always been a ‘sell your product every quarter’ sort of company . . . But we lost the company officer leading it; it lost its profile and now the website’s gone” (GC04).

Beyond changing corporate fortunes and the failure of climate initiatives to demonstrate clear financial returns, purification was also driven by broader changes in the external political discourse. During the period 2010–2013, in response to a fervent public campaign by conservative politicians, industry lobbyists, and right-wing media against carbon pricing and climate change action, many corporations stepped back from the public spotlight on this issue. For many managers, climate change became controversial, with attendant reputational risks. At the height of the political debate, the head of government relations at FinanceCo explained: “How we deal with sensitivities within the organization about taking what can be seen as a partisan position in a highly political environment . . . that’s the challenge at the moment.” (FC10)

Indeed, the changed political context toward climate action coincided with corporate leaders recanting their earlier advocacy on the issue. At MediaCo, the company’s CEO now publicly questioned climate science and the urgency of climate change, while media observers noted the increasing intensity with which the company promoted climate change skepticism in its publications. Declining public concern over climate change appeared to reduce the business case for engaging with the issue, and indeed the company’s publications now appealed to growing public skepticism about climate change as a source of sales.

Dilution. Beyond just a narrowing of corporate focus on shareholder value, normalizing also involved enmeshing the earlier attention to climate change within a broader range of concerns. We labeled this process “dilution” and it was evident in all of our case organizations as a response to the changed external and internal discourses on climate change. For instance, at GlobalCo, dilution was apparent in the recalibration of the company’s eco-innovation focus to include fossil fuel industries, such as hydraulic gas fracturing (i.e., “fracking”) and tar sands extraction. Rapid global growth in these industries provided significant markets for GlobalCo products, and the company characterized its involvement in these industries as a way of continuing

to solve “tough environmental challenges” by improving efficiency (GC Fact Sheet, 2014). As one senior manager explained, “We are pointing more R&D dollars toward natural gas. Really making sure that we have the social license to operate, that we are working on tough problems around gas” (GC05). Despite criticism from environmental NGOs that these fossil fuel industries contribute to increased greenhouse gas emissions, company executives defended their new positions by arguing that their focus was broader than just climate change.

A similar trend was evident at EnergyCo, which, despite its earlier focus on renewable energy generation, in 2012, purchased the country’s largest coal-fired power plant at a reduced price, expanded its investments in coal seam gas production, and later argued against renewable energy targets. Dilution was also evident at MediaCo, where the focus on “carbon” and “climate” became less apparent within a broader focus on “environment,” “waste reduction,” and “water use.” The company’s sustainability manager explained: “We’ve broadened what we do. It’s no longer confined to just an energy and carbon focus.” (MC14) In widening the scope of corporate initiatives to “sustainability,” the earlier emphasis on climate change dissipated in favor of more immediate and profitable concerns. Indeed, in some cases, the term “climate change” disappeared altogether from corporate reporting. The sustainability manager at InsureCo commented: “In fact, if you look at our sustainability report, I challenge you to find the words ‘climate change’ . . . You know, a bit of a cop-out.” (IC07)

Dilution thus served to defuse politically contentious issues by submerging them within a range of related concerns that could be more easily accommodated within prevailing corporate discourses. In particular, the idea of advocating for carbon regulation and emissions mitigation was increasingly replaced by a view that climate change was now inevitable and businesses should focus on adapting to the new physical environment that climate change would bring. At FinanceCo, this involved linking climate change to what was now termed the “2 degree economy,” while, at InsureCo, the focus was on mapping vulnerable communities, identifying “uninsurable” areas, and pushing for local adaptation to increasing floods, droughts, and fires.

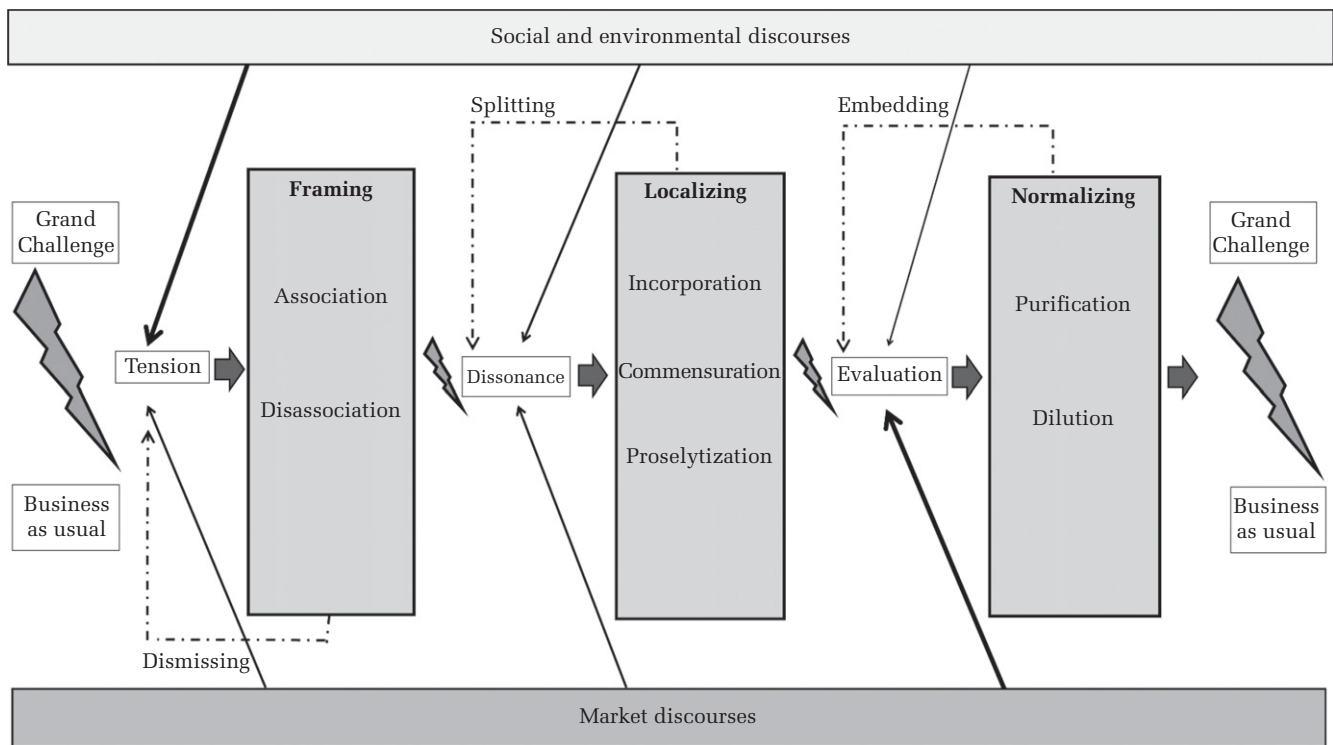
Normalization thus enabled senior managers to respond to the market critique and evaluation that engaging with climate change distracted from the core purpose of maximizing shareholder value,

particularly in circumstances of financial stress, new investment opportunities, and a changed political context. Of course, this move also opened these organizations to further criticism from the media, NGOs, and employees that they had failed to honor earlier commitments to climate action, or that their current focus on environmental sustainability amounted to nothing more than greenwashing. However, while offering the potential for a fresh round of corporate climate change engagement, this final stage of normalizing highlighted how the evaluation of market worth appears to be a more fundamental concern within corporations than environmental well-being.

A GROUNDED MODEL OF BUSINESS RESPONSES TO GRAND CHALLENGES

In the previous sections, we described how the five case organizations responded to climate change over 10 years (see Figure 2 for key events). In this section, we present a grounded model of the processes informed by this analysis, in order to theorize how corporations respond to grand challenges. The model builds on the conceptualization in the B&NE literature of how corporations respond to environmental problems by strategically framing competing demands in ways that uphold the tension between the market and the environment (Hahn et al., 2014; Van der Byl & Slawinski, 2015), and enact this framing through activities and practices (Bansal, 2003; Crane, 2000; Delmas & Toffel, 2008; Hoffman, 2001; Howard-Grenville, 2006; Sharma, 2000). These studies draw attention to the importance of local actors in making sense of the problem and the role of current functions and structures in implementing practices. Our model builds on these insights by demonstrating how competing demands are subject to continuous critique over time, revealing tensions, dissonance, and evaluations that trigger firm activities to resolve them. The findings of our five cases suggest that initial corporate commitments to grand social and environmental challenges inevitably conform to short-term market assumptions (see Figure 3). The model also highlights potential alternative responses (indicated by dotted arrows). Although the concept under scrutiny (climate change) and the revelatory five case studies have unique features, we argue that the patterns in the model also characterize the underlying limitations of corporate engagement with other grand challenges that are converted into business-as-usual formulations.

FIGURE 3
Grand Challenge Translation within Corporations



From Grand Challenge to Business as Usual

As illustrated in Figure 3, the first stage in the translation of grand challenges within the corporate arena is triggered by highly publicized events largely based on social or environmental concerns (Hoffman & Ocasio, 2001) (bold arrow in model). As outlined in our findings, senior managers in all five case studies sought to respond to external critiques from the government, NGOs, the media, and consumers in regard to their contributions to the climate crisis. In this initial framing stage, executives explicitly associated the grand challenge of climate change with conventional market discourses (e.g., climate change as a business opportunity for innovation and leadership, an impetus for managing risk, a way to better respond to customers). At the same time, these strategic framings were used to disassociate their organizations from aspects of social/environmental discourses that threatened existing business models, by, for instance, rejecting the need for government regulation, playing down perceptions of being “green” or altruistic, and even (in the case of EnergyCo) rejecting the need to reduce energy production.

Thus, our model provides support for the role of framing and “win-win” rhetoric as a key part of the

initial corporate response to social and environmental challenges. Indeed, while not evident in our case study data, it seems entirely possible that many firms might well reject this initial framing attempt (what we have termed “dismissing” in Figure 3). While our case companies were among the most proactive organizations in Australia in responding to the issue of climate change during this period, the vast majority of companies were far less engaged, with many either ignoring or rejecting climate change as an issue of concern for their organizations (Nyberg et al., 2013). However, dismissing a grand challenge does not resolve the initial tension, and businesses that do so are likely to continue to face criticism.

Framing is only the first step in the organizational translation of grand challenges. These initial positions are not fixed, and indeed produce further tensions and dissonance as they are subjected to new criticism based on market or environmental discourses. For instance, the claim that a social or environmental problem is a strategic business concern can be readily challenged in terms of its relevance for a specific business and contribution to bottom-line results. Engaging in corporate environmentalism can

thus be critiqued as a distraction from core business or harming shareholder returns (Devinney, 2009). As outlined in our findings, this led to a second stage of translation, which we termed “localizing.” Senior and operational managers who engaged in localizing sought to satisfy the opposing goals of business growth and environmental well-being by creating local conventions and practices. This process includes the activities of incorporation, commensuration, and proselytization, aimed at responding to critique by demonstrating how the initial framings of climate change could be operationalized in practices that respond to both market and social/environmental concerns.

Of course, there is also potential here for an alternative process, which, while not dominant in our data, appears in other critical accounts of corporate “greening” (Crane, 2000; Fineman, 1997). What is termed “splitting” (Lewis, 2000; Smith & Lewis, 2011) in Figure 3 refers to the possibility that organizations may fail to localize their earlier framings of social/environmental issues in practice and rely on a purely rhetorical response. This aligns with the radical criticism of corporate environmentalism as “greenwashing,” a mostly symbolic activity lacking tangible practice (Bowen, 2014). Claims by car companies and airlines that they “offset” the carbon emissions of the products their customers purchase are good examples of splitting practices, and the disconnect between the rhetoric and substance of corporate environmentalism (Lyon & Montgomery, 2015).

While the normative and critical NCE literatures acknowledge the framing and localizing elements of our proposed model, often omitted from existing analyses is the potential for the deterioration of such initiatives. While localizing provides a temporary compromise in seeking to balance competing demands, over time, these tensions often return, particularly in circumstances characterized by financial contraction, threats to corporate profitability, and changing political contexts. Newly localized practices are subjected to renewed market critique through the process of evaluation. Practices must contribute to corporate profitability and shareholder value as “obligatory passage points” for continuation and maintain their fit with prevailing market discourses (Callon, 1986; Denis, Langley, & Rouleau, 2007). If they do not satisfy these market tests (bold arrow in model), then, in the third stage of normalizing, they are subject to purification and/or dilution. As we have seen, this often involves the turnover of senior managers who have championed climate change action, as well as the unwinding of localized practices in a return to “core business.” The

translation of the grand challenge into business as usual thus concludes; in several of the corporations we studied, even the term “climate change” was expunged from the corporate lexicon. The processual cycle accordingly opens up new potential tension between the grand challenge and business as usual.

Importantly, this shift may not be direct or straightforward. For instance, companies that are promoted as best practice examples of corporate environmentalism with a longer history of activity may in fact undergo multiple stages of evaluation, creating temporary compromises in order to satisfy market tests in the short term and delay normalizing. In Figure 3, we label this possibility “embedding” (see also Smith & Lewis, 2011), foreseeing the potential for multiple circuits of evaluation in which corporate environmental initiatives are integrated into business processes to generate competitiveness (Vilanova, Lozano, & Arenas, 2009). However, the tensions are not resolved, only deferred (Putnam, Fairhurst, & Banghart, 2016), and eventually provide the seeds for later forms of change toward normalization (Seo & Creed, 2002). While alternative business structures such as benefit corporations offer potential in managing these conflicting tensions (Hiller, 2013), the fiduciary duty of corporate managers to stockholders over and above other stakeholders places real constraints on the ability of organizations to meaningfully satisfy the needs of the market and the environment over time.

DISCUSSION

By providing a longitudinal and comparative examination of how five Australian firms responded to climate change, we have elaborated a theoretical model of how grand challenges are translated into corporate practice. The model clarifies the competing perspectives on how corporations respond to environmental challenges in the B&NE literature by elucidating three stages corporations go through in responding to different pressures continuously revealed through critique. In this final section, we discuss the implications of our findings for the B&NE literature and for debates on climate change. We then outline limitations of the study.

Contributions to Theory

Previous research suggests that companies’ environmental practices are shaped by different external and internal pressures or critiques (Delmas & Toffel,

2008; Howard-Grenville, 2006). This creates tensions that trigger organizational transformation (Hart, 1995; Hoffman, 1999), with managers framing environmental challenges within the business paradigm in order to address these tensions (Bansal & Roth, 2000; Sharma, 2000). While current B&NE literature supports combining competing demands in organizational practices (Gao & Bansal, 2013), our model suggests a regressive pattern toward traditional business concerns over time. Our translation model offers several theoretical contributions in this regard.

First, we show how continuous critique of corporate practices drives the translation of social and environmental issues toward business as usual. Critique reveals and makes salient the tensions between competing demands that are temporarily papered over by managerial framings and localized conventions. Even embedding social or environmental concerns within practices does not resolve the tensions, but merely represses their opposing discourses. Moreover, when firms are evaluated, they tend to move toward more secure options. While corporate engagement with specific environmental issues ebbs and flows in response to varying social and political discourses, market discourses are an enduring feature of business. If short-term profitability cannot be guaranteed by social and environmental initiatives, firm practices will regress toward market imperatives over time through the normalizing process. Certainly, businesses can successfully engage with relatively tame environmental problems that are resolvable through technical activities that also support profitability (Rittel & Webber, 1973). However, engaging with grand challenges such as climate change is particularly problematic for businesses, given the long-term, complex nature of these problems and the underlying tension between economic growth and its material consequences.

Second, our study highlights the urgent need to explore corporate environmentalism over longer time horizons. While a few existing longitudinal studies on corporate environmentalism highlight forms of framing and localizing (see, e.g., Bansal, 2003; Howard-Grenville, 2007), they do not account for how these practices are continuously evaluated to satisfy both environmental/social and market demands. As such, the normative B&NE literature is conceptually built on early synergies and “low-hanging fruit,” such as energy savings and eco-efficiencies, which do not challenge market discourses of growth and profit maximization. These often-creative solutions engage competing demands simultaneously (Smith, 2014). However, they do not

resolve competing demands, because they cannot integrate costly social and environmental challenges within the organizational goal of short-term profit maximization. Rather, these entrepreneurial compromises support and reproduce the power of business firms and dominant market discourses in addressing grand challenges (York, Hargrave, & Pacheco, 2016). Our model thus challenges B&NE scholars to more fully explore the degree to which social/environmental and market objectives can be balanced beyond short-term corporate outcomes, and how such a process can be maintained over time.

Third, our research supports previous conclusions that organizational framing of social and environmental issues seldom radically transforms business practice (Crane, 2000; Jermier et al., 2006; Starkey & Crane, 2003). However, our study also contests the assumptions in the critical literature that environmental activities are simply ceremonial green façades (Forbes & Jermier, 2002) within which cynical organizational actors placate environmental critique to legitimate business interests (Crane, 2000; Fineman, 1997). The managers we interviewed were, for the most part, emotionally invested and morally concerned about the social and environmental consequences of climate change. However, they were also well aware of their limited room to maneuver, and that, if they did not fulfill market demands, they would be replaced. These managers were pragmatic, rather than cynical or naïve. They recognized the tension between meaningful engagement with the grand challenge of climate change and an organizational focus on short-term profitability. Thus, while the outcome of our model converges with the more critical tradition of B&NE, it is important to note the additionally complex motivations underpinning corporate engagement with environmental issues and the role of competing discourses on the actions of corporate managers.

This also contravenes recent thinking on social and environmental challenges that suggests that managers may be simply unaware of how to achieve their commitments (Bromley & Powell, 2012; Crilly, Hansen, & Zollo, 2016). To the contrary, managers accept, albeit sometimes reluctantly, that their role involves the politics of “dirty hands” and the impossibility of governing innocently (Nyberg & Wright, 2013). They recognize that their interventions can be readily dismantled in the event of a dip in profits or market share, opposing investment opportunities, or changes in the political and legislative context. Thus, the individual commitment of managers to grand challenges is in many cases

authentic, and it is at this level that we perhaps see the greatest benefit of their work. By spanning organizational boundaries and collaborating with peers from other organizations, NGOs, and social movements, environmentally concerned managers provide support for more far-reaching political responses. In these arenas, environmental and social challenges are not so readily opposed by the daily organizational evaluations of cost effectiveness and profit maximization.

Contributions to Policy and Practice

Our paper also provides a number of contributions to policy debates. In particular, our analysis illustrates why the wickedness of grand challenges like climate change is particularly unsuited to resolution solely through corporate responses. We highlight three specific factors that underpin the limits of meaningful corporate action in response to many of the grand challenges facing the world, such as poverty and social inequality, environmental degradation, and geopolitical instability.

First, corporations are inherently unsuited to deal with issues that play out over the medium to long term. Despite the discourse of business strategy, technological and financial developments have resulted in the global corporation becoming increasingly focused on short-term objectives and outcomes (most evident in the focus on quarterly and semi-annual reporting and the shrinking tenure of executive managers) (Bansal & Desjardine, 2014). This temporal disconnect is particularly evident in the case of climate change, in which the impacts will play out over coming decades with increasing intensity. This is a timescale of change that corporations are unable to internalize within increasingly short-term business models. As we saw in our cases, all firms had problems maintaining a coherent approach to climate change in the decade of our inquiry, given both internal organizational changes (e.g., declining financial performance, leadership changes) and a fluctuating external context (e.g., political, regulatory, and technological changes). Thus, due to their long-term nature, grand challenges are readily discounted by businesses in favor of more immediate problems and opportunities.

Second, while corporate capacity for technological and market innovation is often invoked as a solution to a range of global challenges, businesses are also often complicit in causing the very problems they are asked to solve. Again, this conflict is particularly evident in the case of climate change, in that

corporate reliance on economic growth and fossil fuel-based energy is the central contributor to escalating carbon emissions. Avoiding dangerous climate change requires the radical decarbonization of energy, transportation, and manufacturing on a scale that is historically unprecedented and incompatible with economic growth (Anderson & Bows, 2011). Among the corporations we studied, even firms that were relatively progressive on this issue explicitly discounted the idea that responding to climate change should involve activities that threaten growth and existing business activities. Businesses thus have a strong interest in translating grand challenges away from outcomes that challenge their profit-making abilities, while emphasizing responses that can be aligned with value creation.

Third, meaningfully responding to many of the grand challenges facing the world requires systemic intervention based around central authority. Nation states have traditionally confronted major crises such as wars and economic depressions through active government intervention and the regulation of economic and social activity. However, in the current age of neoliberalism, the role of government is explicitly rejected in favor of market solutions and corporate innovation (Crouch, 2011). Indeed, the political strata have become increasingly subservient to corporate interests (Barley, 2007). Governments increasingly favor economic interventions that ensure profit maximization, irrespective of the social and environmental costs. Rather than government intervention and regulation of social and economic activities, grand challenges (and their “solutions”) are inevitably couched in the language of markets and free enterprise. This broader political context further supports the corporate translation of grand challenges into business as usual. If corporations are the key agents in responding to various grand challenges, then perhaps unsurprisingly they cast the problem in their own image and enact it within existing understandings and activities. This highlights the importance of diminishing the influence of short-term interests in both political (Lazarus, 2009) and organizational contexts by, for example, limiting corporate political influence and encouraging long-term corporate planning and incentives (Slawinski, Pinkse, Busch, & Banerjee, 2015).

Limitations

Our study also has a number of limitations. First, we have used five organizational case studies to theorize business responses to climate change. All of

the organizations we studied were actively responding to climate change, which suggests that we need to be careful in generalizing our findings. While focusing on more proactive firms provided an opportunity to understand the processes through which this grand challenge was translated, future research is needed to investigate organizational dynamics in businesses that reject or dismiss this issue, particularly as the physical and political ramifications of the climate crisis worsen. Similarly, the political nature of the concept of climate change also suggests the need for care in translating the model to other areas. Less contentious issues can arguably be addressed without continuous criticism purifying or diluting a challenging concept (Hahn et al., 2014). These tensions may even be upheld and addressed through entrepreneurial activities that can benefit a firm (Marcus, 2015).

Second, focusing on the internal processes of translation, our explanation is limited to organizational activities and practices. For-profit corporations operate within a market, where profit motives and growth are rarely questioned. There are thus globally dominant discourses at work, making any challenges to growth and profit seem naïve. While these discourses are accounted for in the model within critique, further analysis of the explanatory power of these discourses would augment our understanding of corporations' failure to act on climate change.

Finally, focusing on the translation process within corporations makes us partially blind to the societal and global process of climate change translation. As mentioned previously, climate change is a polarizing concept that is hotly debated in countries such as Australia and the United States. This is largely due to the corporate political activities of fossil fuel corporations, conservative media, and sponsored think tanks (McCright & Dunlap, 2011). The process of organizational translation may therefore appear differently in a society with less polarized debate or within different political regimes.

CONCLUSION

Human-induced climate disruption has rapidly emerged as an existential crisis for humanity. Following two centuries of industrialization, humans have become a force of nature, changing the very chemistry of our atmosphere and oceans. The consequences of our escalating exploitation of fossil fuels and the destruction of forests and oceans could not be starker. As Elizabeth Kolbert (2006: 189)

remarked, "It may seem impossible to imagine that a technologically advanced society could choose, in essence, to destroy itself, but that is what we are now in the process of doing."

Facing such a crisis requires radical changes in how our society and economy function. However, while business innovation and market-based solutions are promoted as central to the climate response, change, to date, has been limited, and corporate actions often regress to a business-as-usual approach. In this paper, we have argued that a major reason for this lack of progress is the way in which climate change is translated within major corporations. Even among strong proponents of the need to respond to the climate crisis, our research reveals an almost inevitable process of converting such concerns into the more familiar and less threatening discourses of profit maximization and shareholder value. This suggests that business leadership on climate change alone is insufficient to provide the dramatic decarbonization needed to avoid dangerous climate change. Business and technological innovation is an essential part of the climate response. However, as a systemic issue, climate change also needs regulatory guidance to ensure significant and permanent reductions in greenhouse gas emissions. Organizations and economies must be managed within the limits of planetary boundaries requiring societal governance for the collective good. While climate change is an unparalleled threat to the future of our society, we need to imagine a future that goes beyond the comfortable assumptions of business as usual. It is this much-needed societal response that represents perhaps our greatest challenge.

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