

Strategies for climate change and impression management: A case study among Canada's large industrial emitters

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Abstract

This paper explores the justifications and impression management strategies that industrial companies use to rationalize their impacts on climate change. These strategies influence the perceptions of stakeholders through the use of techniques of neutralization intended to legitimize the impacts of corporate operations in the area of climate change. Based on a qualitative and inductive approach, 10 case studies were conducted of large Canadian industrial emitters. Interviews were conducted with managers and environmental specialists (n = 32). Public documentation was also collected when available. This study identifies six main neutralization techniques that industrial emitters use to rationalize their impacts: self-proclaimed excellence, promotion of a systemic view, denial and minimization, denouncing unfair treatment and deceptive appearances, economic and technological blackmail, and blaming others. The paper develops a better understanding of corporate arguments and strategies aimed at influencing the perceptions of stakeholders, including policymakers. The study also contributes to the literature on impression management by shedding light on new strategies and techniques of neutralization used by managers to shape the perceptions of stakeholders on socially sensitive issues.

Keywords: Climate change; Impression management; Techniques of neutralization; Industrial emitters

Introduction

Social pressures to reduce greenhouse gas (GHG) emissions are generally perceived as one of the main determinants of corporate commitment to issues of climate change (Boiral et al. 2012; Haigh and Griffiths 2009; Hoffman 2006; Okereke 2007). A study by Ernst and Young (2010) among 300 large-company executives from 16 different countries shows that 84 % of surveyed executives perceive stakeholders' expectations as an important or very important element of their decision to intervene in the field of climate change. Governments, investors, suppliers, customers, competitors, and the general public are, therefore, becoming increasingly aware of these issues and tend to exert institutional pressures, particularly on carbon-intensive industries (Boiral et al. 2012; Okereke and Russel 2010; Pinkse and Kolk 2009). As companies in these sectors are to a large degree responsible for the carbon footprint of industrialized countries, they have to face social pressures and new regulations adopted to fight against climate change. This is the case of Canadian companies considered to be large final emitters (emissions equivalent to

more than 100,000 tons of CO₂ per year). In 2010, they were responsible for 38 % of total GHG emissions in Canada (Environment Canada 2012a). In order to respond to increasing pressures from stakeholders, such companies generally develop information strategies aimed at influencing the decision-making process toward regulations which meet their expectations and enable them to improve their social image (Kolk and Pinkse 2007; MacKay and Munro 2012; Nyberg et al. 2013).

However, few studies have focused on impression management arguments and strategies used by companies to influence stakeholders' perceptions of climate change and reduce external pressures regarding this issue (MacKay and Munro 2012; Nyberg and Wright 2012). Some studies on the subject have focused on information campaigns organized by emitters to influence public opinion and policy debates (e.g., Kolk and Pinkse 2007; Levy and Egan 2003; MacKay and Munro 2012; Nyberg et al. 2013). It also appears that a number of companies issued official communications that misinformed stakeholders (MacKay and Munro 2012; Nyberg et al. 2013). Businesses' self-promotion and their lack of transparency have also been studied in the literature on the disclosure of climate performance. According to some studies, companies with the worst performance appear to divulge the greatest amount of information (e.g., Cowan and Deegan 2011; Prado-Lorenzo and Garcia-Sanchez 2010). A significant gap also seems to exist between the real commitment of companies and their public image (Jones and Levy 2007; Nyberg et al. 2013; Sæverud and Skjærseth 2007; Skjærseth and Skodvin 2001). However, few studies have examined the justifications that big polluters produce to legitimize their operations and their impacts in the area of climate change. Nyberg and Wright (2012) highlight the fact that studies of managers who are skeptical and less active in this area are needed to better understand the influence which these companies exert on the debates surrounding climate change.

This study proposes to apply impression management theory to study the legitimation strategies used by companies in the field of climate change. This theory focuses on actions which are intentionally developed to influence the manner in which the organization is perceived (Bolino et al. 2008). The majority of studies on impression management discuss the strategies used to improve corporate image, and focus especially on the company's positive rather than negative impacts (Bolino et al. 2008). In order to analyze the strategies used by companies that have a significant impact on GHG emissions, this article highlights one particular and less studied form of impression management: neutralization techniques. These are the techniques that individuals and organizations use to rationalize and legitimize behaviors that are ethically questionable or that have negative impacts (Strutton et al. 1994; Sykes and Matza 1957).

The objective of this paper is to explore impression management strategies applied by the managers of large emitters to justify the impact of their operations in the area of global warming. This study fills a gap in the theoretical analysis of corporate information strategies and tactics in the area of climate change, which was identified by MacKay and Munro (2012). In addition, the study contributes to the literature on impression management by analyzing not only the techniques intended to improve the organization's reputation directly, but also those intended to minimize the company's responsibilities or to defend or justify the adverse impacts of business activities (Bolino et al. 2008; Mohamed and Gardner 2004).

The rest of the article is organized as follows. First, a review of the literature on communication and legitimation strategies is presented. Then, methodological aspects and the main results are described. Finally, the last section is devoted to the discussion of the results, contributions, and avenues for future research.

Legitimizing Corporate Strategy and Impacts on Climate Change

In the literature, the discussion of the strategies of legitimation and communication in the field of climate change has focused on two main themes: political activities and the disclosure of climate performance. These themes are complementary and reflect two different approaches employed to influence the stakeholders' perceptions on climate change issues.

Political Activities

Corporate political activities are defined as all attempts to shape government policy (Hillman et al. 2004). A majority of studies on political activities in the field of climate change have attempted to explain the evolution of corporate positioning and their influence on public policies. In the early 1990s, most North American large emitters, particularly in the oil sector, responded aggressively to the attempt to regulate GHG emissions. In particular, they challenged the findings of climate science and emphasized the potentially disastrous economic consequences of policies to be adopted in this area. European companies were generally much more receptive to regulations and more willing to invest in green technologies (Jones and Levy 2007; Levy and Egan 2003; Schlichting 2013). Levy and Egan (2003) have analyzed the war of position that companies in the oil and automotive sectors engage in to influence climate regulations. The strategies used involve the organization of political activities (e.g., presentations made to government authorities, participation in groups lobbying on the behalf of the industry) and the development of a discursive strategy focused on the lack of scientific evidence for global warming and the negative economic consequences of regulations to be adopted (Levy and Egan 2003). Similarly, MacKay and Munro (2012) have analyzed information campaigns developed by Exxon and Greenpeace to influence public opinion on the issue of climate change. The two authors have identified four main tactics used by the oil company to achieve its objectives: 1—provoking and spreading doubt about climate science; 2—creating a science of denial through the financing of a network of NGOs dedicated to the promulgation of a counter-science; 3—misinforming stakeholders through “corporate citizenship reports” and public relations materials; and 4—the use of legal measures to discredit Greenpeace as a source of reliable information. The study suggests that Exxon deliberately engaged in a strategy aimed to discredit climate science and misinform the public in order to influence public policy. Nyberg et al. (2013) have analyzed the political commitment of 25 Australian companies. They have identified two major groups of practices intended to influence the debate and climate regulations: campaigning and exemplifying. Campaigning includes actions aimed at influencing climate policies through direct or indirect actions, such as participation in public consultations, media outlets, lobbying policy makers, and the creation of alliances, including in particular NGOs and industrial associations. Exemplifying focuses on promoting the company as a responsible organization that meets the expectations of civil society. Nyberg et al. (2013) have pointed out the gap between the companies' public image and their real willingness to act. In fact, while emitters publicly

demonstrate their commitment to climate change issues, behind closed doors they tend to ardently advocate limiting the scope of regulations. Other authors have also highlighted the incongruence between the positions companies express publicly and the actions they actually take in their operations (Jones and Levy 2007; Sæverud and Skjærseth 2007; Skjærseth and Skodvin 2001).

Corporate Disclosure on Climate Change

The second topic addressed in the literature concerns the disclosure of information on climate performance. Faced with increasing pressures from stakeholders, companies are called to develop performance indicators and to disclose information on climate performance in order to legitimize their industrial activities (e.g., Cowan and Deegan 2011; Dawkins and Fraas 2010; Hrasky 2012; Prado-Lorenzo and Garcia-Sanchez 2010; Prado-Lorenzo et al. 2009). Disclosing information on climate issues can be done through sustainability reporting, the use of which has become widespread among large companies (Gray 2006; Perego and Kolk 2012; Unerman et al. 2007). In 2011, nearly 95 % of the world's 250 largest companies published a sustainability report (KPMG 2011). The disclosure of climate performance can also be achieved through more specific media, such as the Carbon Disclosure Project (CDP), in which a growing number of FT500 companies participate (Pinkse and Kolk 2009). Regardless of the mode of disclosure used, business decisions in this area are not necessarily motivated by the search for more transparency and accountability (e.g., Dawkins and Fraas 2010; Hrasky 2012; Rankin et al. 2011; Reid and Toffel 2009). According to the voluntary disclosure theory, proactive organizations tend to use sustainability reports to demonstrate their commitment and good performance in this area (e.g., Bewley and Li 2000; Clarkson et al. 2008). In contrast, the legitimacy theory argues that voluntary disclosure is primarily a response to external pressures and does not necessarily reflect organizational commitment to sustainable development (e.g., Besio and Prozini 2013; Cho et al. 2012; Deegan 2002). Such institutional pressures encourage companies to adopt a symbolic approach aimed at influencing stakeholder perceptions rather than improving transparency and performance in the field (Boiral 2013; Cho et al. 2010; Laufer 2003).

This symbolic rather than substantive response to institutional pressures often relies on impression management strategies (Hooghiemstra 2000; O'Donovan 2002; Ogden and Clarke 2005) and it has been observed in several studies on the disclosure of climate performance. Based on an analysis of the information published on the websites of 101 Fortune 500 companies, Prado-Lorenzo et al. (2009) have shown that disclosure is a means of legitimation aimed at both demonstrating compliance with regulatory constraints and attracting investors. In a later study, Prado-Lorenzo and Garcia-Sanchez (2010) confirmed the importance of the quest for legitimacy, especially for companies with poor social and/or environmental performance. Cowan and Deegan (2011) reached the same conclusion as a result of study of the relationship between environmental performance and disclosure among Australian companies. In addition, Dawkins and Fraas (2010) highlight a positive relationship between company media exposure regarding climate change and its propensity to disclose their performance. These studies demonstrate the importance of disclosure as a legitimation mechanism used to reduce social pressures (Cho et al. 2012; Deegan 2002). Companies' efforts to legitimize their activities and improve their image on climate change issues may be similar to greenwashing, i.e., the transmission of erroneous information on climate practices and performance in order to positively influence the

stakeholders' perceptions and the company's relationships with them (Laufer 2003; Boiral 2013). Ihlen (2009) has described a certain inconsistency in the official environmental discourse of the 30 largest corporations in the Global Fortune 500. His analysis of the use frequency of a number of keywords (climate, global warming, Kyoto\IPCC, GHG emissions\carbon\CO₂) demonstrates that the four companies (Ford, BP, Chevron, and General Motors) which use these concepts the most often also figure on the list of America's worst greenwashers (Ihlen 2009). Domenec (2012) has also observed such a tendency in his analysis of the letters that Exxon, Chevron, and BP sent to their investors and stakeholders each year between 2003 and 2009. In order to disassociate themselves from a perception of them as polluters who affect the quality of the environment, these companies started using green communications as a valorization tool used to project an image of companies which are responsible and proactive on environmental issues (Domenec 2012). This type of valorization illustrates the manner in which companies can use to their advantage the moral values associated with climate change (Besio and Prozini 2013). According to Besio and Prozini (2013), the moral claims made in the dominant discourse on climate change can lead companies to respond in a wide variety of manners, some of which are superficial and others more substantial.

In a study among Australian managers, Nyberg et al. (2013) describe the manners in which companies influence the debate on climate change in Australia through communication campaigns, lobbying, and disclosure of environmental information to exemplify their role as good corporate citizens. However, this type of exemplification tends to rely on unreliable information. In fact, regardless of the nature of the actions implemented by companies, numerous studies question the quality, usefulness, and comparability of the disclosed environmental data, also in the field of climate performance (e.g., Cowan and Deegan 2011; Green and Li 2012; Hrasky 2012; Kolk et al. 2008; Talbot and Boiral 2013). In general, as in the case of sustainability reporting, the disclosure process on climate change issues appears to be influenced more by the logic of public relations than by transparency (Boiral 2013; Unerman et al. 2007). In this perspective, corporate interests tend to prevail over those of stakeholders (Milne and Gray 2007; Moneva et al. 2006).

However, even if the literature on corporate disclosure on climate change generally emphasizes the importance of the corporate search for social legitimacy, the type of communication and the specific arguments used to justify the companies' negative impacts have been little studied. The literature on impression management and neutralization techniques, although it does not specifically concern the issue of climate change, allows us to better analyze the arguments used by companies to enhance or protect the corporate image, especially when their social legitimacy is threatened.

Managing Impressions Through the Techniques of Neutralization

The concept of impression management refers to "behavioral strategies that people use to create desired social images or identities" (Tetlock and Manstead 1985, p. 59). The concept has mostly been used in psychology to describe self-promotional behaviors at the individual level. However, various studies have shown that organizations also use impression management strategies to influence, in a more or less artificial manner, the perceptions of stakeholders (e.g., Bansal and Clelland 2004; Bansal and Kistruck 2006; Bolino et al. 2008; Cho et al. 2010). Thus,

organizations facing events or strong social pressures that may compromise their legitimacy tend to use a variety of impression management strategies to positively influence their image (Elsbach and Sutton 1992). Because of their socially sensitive nature, environmental issues are not immune to these strategies (Neu et al. 1998; O'Donovan 2002). The complexity, opacity, and uncertainty associated with these issues may in fact encourage organizations to engage merely symbolically, through the use of impression management strategies, rather than concretely (Bansal and Kistruck 2006). The literature on environmental disclosure and impression management has highlighted the tendency of companies to present an idealized picture of reality and conceal some negative information in their communications with stakeholders (Cho et al. 2010, 2012; Criado-Jiménez et al. 2007; Perks et al. 2013; Solomon et al. 2013). In their recent study on the disclosure of negative information in GRI sustainability reports, Hahn and Lülfs (2013) identify six main legitimation strategies: marginalization, abstraction, indicating facts, rationalization, authorization, and corrective action. This study is interesting as it sheds light on the bias and positive rhetoric of sustainability reports, which have been largely criticized in the critical literature on sustainability reporting (e.g., Cho and Patten 2007; Cho et al. 2010; Holder-Webb et al. 2008; Boiral 2013). Still, the analysis by Hahn and Lülfs is based only on secondary information and reports that reflect a public relations perspective rather than the discourse of managers.

However, the literature on impression management in general has, to our knowledge, not focused on the issue of climate change and the strategies of justification used by businesses to legitimize their impacts. These strategies have been little studied by researchers (Nyberg and Wright 2012). In addition, with a few exceptions (e.g., Hahn and Lülfs 2013), studies on impression management in the field of environment have essentially focused on the positive communication strategies developed to improve corporate image (Cho et al. 2012; Perks et al. 2013). Defensive impression management techniques, which are used to protect corporate image or to justify a socially questionable situation, practice, or behavior (Mulvey et al. 1998; Ogden and Clarke 2005; Stevens and Kristof 1995), appear to have been little studied in the literature on environmental management (Hahn and Lülfs 2013). And yet these techniques appear to play a central role when companies are exposed to strong social pressures or significant criticism of their actions. Defensive impression management strategies applied for the justification of negative elements are clearly linked to neutralization techniques (Chatzidakis et al. 2004) which are used “to deny responsibility for offences” (Hucklesby 2011, p. 70), “rationalize deviant behaviours” (Sykes and Matza 1957) and “neutralize the guilt associated with it” (Copes 2003, p. 102). These techniques, derived from the literature on crime and social deviance, ultimately allow for the streamlining of non-normative or ethically questionable behaviors (Strutton et al. 1994; Sykes and Matza 1957).

Neutralization techniques, originally developed by Sykes and Matza (1957), concern broad justifications (denial of responsibility, denial of harm or injury, denial of the victim, appeal to higher loyalties, condemnation of condemners) and may therefore be applied in a variety of contexts. In fact, the literature on neutralization techniques has analyzed the justifications used by individuals in a variety of contexts, ranging from juvenile delinquency to consumer behaviors (e.g., Chatzidakis et al. 2007; Gruber and Schlegelmilch 2013; Harris and Daunt 2011; Maruna and Copes 2005; Strutton et al. 1994). However, corporate justification behaviors have not been extensively studied in the literature, except for some research on marketing and crisis

management (Allen and Caillouet 1994; Bolino et al. 2008; Fooks et al. 2012). Although the recent study by Hahn and Lülfs (2013) focuses on corporate greenwashing practices and the legitimization of negative ecological or social impacts, it does not make clear links with the rather extensive literature on the techniques of neutralization and the justification strategies outlined in it. And yet neutralization techniques enrich the research on impression management and environmental issues by highlighting the use of various communication strategies, such as denial and blame, to defend the image of the company. Despite the relevance of impression management and neutralization techniques, these concepts have not, to our knowledge, been applied to the examination of corporate legitimization strategies on climate change.

In summary, the existing literature made it possible to highlight certain strategies companies develop in order to legitimize their position. However, the existing research is still insufficient in regard to the issues raised. Few studies have focused on the legitimization strategies used by large emitters to justify their climate performance to stakeholders. As mentioned by MacKay and Munro (2012, p. 1508), studies devoted to the organizations' responses to the problem of climate change have not sufficiently focused on the theorization of information strategies and tactics. In addition, most studies on impression management strategies in the field of the environment limit themselves to positive public information disseminated by companies without taking into account the manners in which managers justify the impacts their organizations have. However, not all companies release public information concerning their position on climate change. In order to understand the manners in which managers justify and legitimize those impacts, it is necessary to conduct interviews within organizations. Nyberg and Wright (2012) have also mentioned the importance of conducting studies on the justifications used by managers who are more skeptical and less active regarding the environment and climate change.

Research Design

The objective of this study is to explore the strategies of impression management used by business managers of companies considered to be large emitters to justify the impacts of their facilities' operations in the area of global warming. The main research question was not initially focused on the analysis of possible techniques of neutralization but, more generally, on the discourses and strategies underlying the legitimization, by polluting companies, of their impact on global warming. This rather broad focus is in line with the qualitative and inductive approach, which is not intended to answer precisely formulated research questions (Glaser and Strauss 1967; Maxwell 2012). The case method is appropriate to explore the different dimensions of the study (e.g., impacts on climate change, managers' arguments, and stakeholder pressures), as it in fact facilitates the exploration of new issues (Bansal and Roth 2000; Eisenhardt 1989). The method is particularly relevant for the analysis of complex phenomena (Eisenhardt 1989; Yin 2014).

Case Selection

The study is based on 10 cases of industrial enterprises considered by the Canadian government as large final emitters. To qualify, the selected companies had to have a facility that emitted the equivalent of 100 kilotons of carbon dioxide (CO₂) in 2009 and operate in one of the following

areas: mining, pelletizing, aluminum, petrochemicals, or metallurgy. Data gathered from facilities within the Greenhouse Gas Emissions Reporting Program were used to identify eligible businesses. In order to limit the influence of political context on business practices, the research was limited to facilities in the province of Quebec and not those throughout Canada. According to data published by Environment Canada (2010), 24 facilities met the selection criteria. Because some companies have several facilities, the population of this study was actually composed of 15 companies. A letter explaining the objective of the study was emailed to all public communication managers in these companies. Subsequently, the managers were contacted by the researchers to ensure the companies' interest in participating in the study. Finally, 10 of the 15 organizations contacted (67 %) accepted the invitation. As stressed in the literature on the case study method (e.g., Eisenhardt 1989; Rowley 2002; Yin 1999), multiple-case studies are based on a replication logic, in which the observation of the same results or phenomena in various cases contributes to improve the rigor and validity of the study. After completing the first 8 cases, it became clear that few new ideas were produced by the field work. This “theoretical saturation” (Glaser and Strauss 1967) at which “incremental learning is minimal because the researchers are observing phenomena seen before” (Eisenhardt 1989, p. 545), suggests that the data collected in these 10 cases allowed us to achieve the main objective of the research.

Table 1 illustrates the profile of case studies.

Table 1 Profile of case studies

Case	Industry	Emissions/tons of CO ₂	Persons interviewed				Overall
			Environmental manager	Environmental specialist	Operations/process manager	Strategy/public affairs manager	
1	Aluminum	<1 M	1	2	1	0	4
2	Aluminum	<1 M	1	2	0	0	3
3	Pelletizing	≤500 K ≥ 1 M	1	1	1	0	3
4	Pelletizing	≤500 K ≥ 1 M	1	1	1	0	3
5	Mining	≤100 K > 500 K	1	0	1	1	3
6	Mining	≤100 K > 500 K	1	0	2	0	3
7	Petrochemical	≤100 K > 500 K	1	0	2	0	3
8	Petrochemical	<1 M	1	0	1	1	3
9	Metallurgy	≤100 K > 500 K	1	0	1	1	3
10	Metallurgy	≤500 K ≥ 1 M	1	1	1	1	4
Overall			10	7	11	4	32

Data Collection

At first, general information on the company's environmental and climate change issues (e.g., policies on climate change, press articles, company websites, annual reports, sustainable development reports, and briefs submitted during public consultations) were collected. This information allowed us to obtain an overall description of the company and its position on climate change issues in order to analyze the official positions in this area and the communication strategies used to influence the perceptions of stakeholders. The analysis of the information officially released by companies also allowed us to adapt certain questions during interviews, including those aimed at better understanding the rationale for justifying impacts in the area of climate change. However, the publicly available documents were primarily concerned

with large enterprises, in particular Cases 1–3, 5, 8, and 10. For the remaining case studies, information was obtained based on visits to the companies and on internal documents provided by participants.

In the second stage, individual interviews were conducted with managers and environmental specialists involved in the climate issues of their organization. To qualify for the interviews, the respondents had to be knowledgeable about the position and strategy of their organization with respect to climate change. Most of them also had regular contact with stakeholders in order to respond to stakeholder questions on environmental strategy, production processes, and impacts on climate change. In each case analyzed, the respondents interviewed were identified in collaboration with the environmental manager of the organization.

These interviews were conducted after approval of the research protocol by the ethics committee of the “X” University to ensure the respondents’ anonymity. Among other things, this protocol includes sending a letter of consent to participants. The letter provided information on the nature of the study, the proceedings of participation, and the confidentiality of the data. Those interviewed also had the opportunity to consult the interview guide prior to the interview. An email to this effect was sent to participants 1 week before the scheduled date of the interview. The participant could also withdraw from the project at any point or refuse to answer certain questions. Most interviewees (91%) were met during organized site visits. However, three interviews were conducted subsequently by phone, mainly because of the respondents’ health problems or professional obligations. This change in interview mode did not produce significant changes in the data collected. In fact, some studies have shown that there is no significant difference between the transcripts of face-to-face interviews and telephone interviews (Midanik and Greenfield 2003; Sturges and Hanrahan 2004). Semi-structured interviews lasted on average between 1 and 1.5 h. A site visit was also possible in the majority of cases, which allowed the researchers to become familiar with the production process. The interviews were conducted between November 2010 and February 2012. Environmental communications managers in each company were met. The majority of interviewees were managers of environmental, operational, public relations, or corporate strategy divisions (75 %). Other interviewees (25 %) were specialists in environmental and climate issues in the organizations. In order to ensure sufficient knowledge of the subject, participants had to be directly involved in strategic decisions and / or be responsible for the monitoring and evaluation of GHG emissions at the operational level. Those met were considered to be representatives and specialists of climate change questions by their organization. They also have regular contact with stakeholders in response to questions concerning the company’s climate strategy, the protection of the environment, and production processes. The respondents were identified by the Director of the Environment of each organization.

The interviews were based on a semi-structured interview guide addressing five issues: knowledge of challenges; strategies and practices; motivations and obstacles to action; impact of business activities on climate change; and justification of these impacts. Although these issues are interrelated and inseparable, this article focuses more specifically on the last issue – the justification of impacts on climate change. In order to allow a better understanding of the answers and justifications provided by the companies, this part of the interview also addresses the criticisms and pressures from stakeholders on the issue of climate change. All interviews (n =

32) were recorded and transcribed verbatim in a word processor. In total, the interviews represented about 1,100 pages of transcript. To ensure the representativeness of the interviews and to explore company justifications in response to stakeholder criticisms, between 3 and 4 people were interviewed on the same issues in each company. Although the social desirability bias is not a new concern, especially in studies on environmental and ethical issues (e.g., Banerjee 2002; Brønn and Vidaver-Cohen 2009), such a bias is not independent from impression management strategies (Chung and Monroe 2003; Uziel 2010) and therefore cannot be avoided in this study. Nevertheless, several measures were taken to improve the validity of data collected.

Firstly, the anonymity and the confidentiality of respondents were guaranteed in order to promote an atmosphere favorable to the discussion of sensitive issues (Nancarrow et al. 2001). Secondly, indirect questioning techniques (Nancarrow et al. 2001) were used in order to better understand the company's position in the face of stakeholder arguments on the negative impacts of large emitters. Lastly, the data collected during these interviews were supplemented by available formal information from more official documents (e.g., sustainability reports and company websites). In general, the triangulation of information sources and collection methods has allowed us to increase the internal validity of the study (Miles and Huberman 1994). It therefore improves the consistency of results and promotes "the development of converging lines of inquiry" (Yin 2014, p. 120).

Data Analysis

The data analyzed came mostly from the written transcript of the interviews and, where possible, relevant public documents. The process of analysis was based on the qualitative and inductive approach proposed by the grounded theory. This approach consists of a systematic and inductive process of classifying, comparing, and interpreting qualitative data (Glaser and Strauss 1967; Strauss and Corbin 1990). Such an approach facilitates the interpretation of different opinions and perspectives on the same issue. Contrary to studies based on the formulation and validation of preconceived theoretical propositions or hypotheses, grounded theory implies that theories and concepts emerge from the data and its analysis (Strauss and Corbin 1990; Suddaby 2006). In line with this inductive approach, the relevance of the concepts related to the techniques of neutralization emerged only from the data analysis, and not from the initial literature review. The empirical study was therefore not initially intended to shed light on the techniques of neutralization, but rather to analyze the justification of corporate strategies and impacts on climate change. As highlighted by Suddaby (2006), the presentation of relevant concepts and theories in the literature review section of papers based on grounded theory does not mean that these concepts did not emerge from the empirical study.

The QDA Miner software version 4 was used to facilitate data analysis. Initially, eight themes were identified on the basis of the interview guide. These themes or categories were subsequently adapted based on emerging ideas. Some of them were combined and others were expanded. The different passages from the interview transcripts and public data on the company's commitment to issues of climate change were subsequently associated with the different categories.

This inductive process led to the formation of 152 categories, grouped under nine general themes and 29 sub-themes. A total of 2,391 passages were coded. In the specific case of the present study, which concerns impression management strategies and neutralization techniques, the segments used came from 24 categories grouped under four themes that represent the main issues that emerged from the analysis (projected image, commitment to climate, congruence between image and actions, strategies of legitimation). To ensure the rigor of the analysis, three verification strategies were applied. First, as suggested by Miles and Huberman (1994), the different categories were clearly defined in order to facilitate the interpretation of interview transcripts. These descriptions allowed for the standardization of the coding process. New categories were also the subject of discussion among the researchers. Five meetings were held to discuss the emerging codes. Secondly, the clarity of the categories was evaluated starting from the first coded interviews to ensure that a common understanding of the coding tree existed (Thomas 2006). Thirdly, double blind coding (Thomas 2006) was performed for all interviews and inter-coder reliability was analyzed for the last six cases ($n = 19$). In total, 1,512 excerpts were coded and the two coders were in agreement for 1,270 passages. The level of agreement between coders was 84 %, which is an acceptable level of validity. Scott's pi was also calculated using the QDA Miner software to establish the validity and consistency of the coding process. A score of 0.81 was obtained, which represents an acceptable level of agreement (Neuendorf 2002). This inductive analysis allowed the identification of a number of impression management strategies based on neutralization techniques repeatedly used by respondents. Although most of the information collected came from interviews conducted in companies, public records compiled in some cases allowed us to enrich the information and obtain a better understanding of the context in which the legitimation strategies were used. In general, these documents proved to be very consistent with the rhetoric used by the respondents. This consistency suggests that legitimation strategies are fairly well internalized in organizations and are therefore reflected both in the discourse of managers and in official company documents.

As required by grounded theory, the different strategies were identified as a result of data analysis rather than prior assumptions or concepts. Although it was not the primary objective of the study to validate the claims made in the literature on impression management theory and on neutralization techniques, a parallel was quickly discovered between the results and this literature. Therefore, the relevance of the concepts associated with impression management theory and neutralization techniques emerged as a result of the data analysis and not before it. The review of literature on these concepts was thus developed to theorize the results of the study. As stressed by Suddaby, grounded theory “is not an excuse to ignore the literature” (2006, p. 634) and “authors can note that, although they are presenting theoretical concepts in a traditional manner, the concepts did, in fact, emerge from the study” (2006, p. 637).

Results

The respondents interviewed observed that governments, environmental groups, shareholders, the media, and the general population played a central role in the development of the climate strategy of their company. Without the social approval of these stakeholders, the legitimacy of their organization could be compromised. Being a good corporate citizen is central to ensure the viability and sustainability of their business activities. As stated by one Environmental Manager

in the aluminum industry (Case 1): “The social dimension of sustainable development is a fundamental element; if we lack the support of the community, we can’t operate. We will have to put the key under the door.” The lack of legitimacy may also affect relationships with public authorities and put into question an organization’s license to operate. Finally, more and more shareholders require that companies comply with environmental regulations and adopt a proactive strategy in this area. A manager of operations in large mining company insists on the importance of these pressures:

The last thing that you want as a shareholder is to invest in a company that’s a bit cowboy. No one wants to lose money like the BP investors. Shareholders are more and more conscientious and ask us for safeguards. We have to produce a sustainability report. We have to ensure stability for our [current] shareholders and to attract others. The corporates feel the pressure but we in production do too. (Manager of Operations, Case 6)

Generally speaking, in response to increasing social and political pressures, companies tend to adopt various strategies to rationalize and legitimize their high GHG emissions using socially acceptable arguments. Such legitimation is based on neutralization techniques used to influence the image projected to stakeholders. In this study, six non-mutually exclusive neutralization techniques emerged during the analysis. These techniques can be classified according to the degree of optimism underpinning them and their emphasis on the company’s global climate performance rather than on negative aspects:

- Self-proclaimed excellence;
- Promotion of a systemic view;
- Denial and minimization;
- Denouncing unfair treatment and deceptive appearances;
- Economic and technological blackmail; and
- Blaming others.

While the aim of the first two techniques is to project a positive and optimistic image of the company, the remaining four allow the company to minimize or deny the impact of climate change caused by its activities.

Self-Proclaimed Excellence

The most optimistic neutralization technique, mentioned in 40% of the cases, is the company’s self-proclaimed excellence in the field of environmental and climate change. Companies that apply this technique claim to be the best in their field of activity. This self-promotion allows them to distance themselves from the practices used by their competitors by focusing on the positive elements of their environmental and climate performance. For example, one of the cases studied (Case 2) states in its annual report (2012) that the company has been recognized by the U.S. CDP for its “transparency in reducing emissions and mitigating the risks of climate change in our operations.” The company insists on being “one of only 11 companies ranked” by the CDP “on its Carbon Performance Leadership Index.” The objective is not to deny or minimize the impact of business activities on GHG emissions, but to project an idealized image of the organization with a primary emphasis on awards received and efforts made in the past to reduce the GHG emissions. Some respondents (Cases 1, 2, 5, and 6) claimed that their businesses act as

leaders in taking climate change into account, and the practices implemented in their organizations are considered as a reference model. Only two sectors exemplified self-proclaimed excellence: aluminum (Cases 1 and 2) and mining (Cases 5 and 6). Although they are large emitters of GHGs, firms in these sectors claim to stand out by their voluntary commitment and performance in the field. For example, in the aluminum industry, companies that signed voluntary agreements to reduce their GHG emissions with the Government of Quebec in the 2000s (Cases 1 and 2) use these commitments to publicize their proactivity and willingness to exceed social expectations. This information can be found in particular in sustainability reports, annual reports, and on the websites of the two companies. For example, in the sustainability report published in 2013, the president of one company (Case 2) states that “respect for the environment is at the heart of our processes” and it is for this reason that it was “the first company to sign (...) a voluntary agreement with the Quebec government to reduce GHGs.” Emphasizing past GHG reductions also allows companies to respond to pressure from stakeholders and to secure an advantageous position in discussions with government authorities regarding future reductions. This technique of self-proclaimed excellence was used primarily in four cases studied (Cases 1, 2, 5, 6) and was reflected in the interviews conducted in these companies:

Certainly our company gets a lot of media attention. However, it has a very good reputation. We have been recently recognized in a special interest magazine as the most advanced mine in terms of sustainable development. We also won an award granted by the Dow Jones Sustainability Index for leadership in the materials sector (...) Other companies should look at what we do in terms of sustainable development and take it as an example. (Manager of Operations, Case 6)

We do not like to be associated with big polluters. Our company and the aluminum industry in general are renowned for their actions in this field. We have signed voluntary agreements, we publish our results and we are involved in the community. Yes, we are large emitters, but the important thing is that we stand out through our commitments. (Environmental Manager, Case 2)

Promotion of a Systemic View

The second neutralization technique, the promotion of a systemic view, was mentioned by managers and environmental specialists in 80 % of cases under study. They emphasize the importance of analyzing a company’s products and its contributions to society in a comprehensive and systemic manner. They argue that companies should not be judged only by their environmental performance as they also contribute to the economic and social development of communities (Cases 1–5, 10). Some respondents also mentioned the importance of taking into account the positive environmental impacts of their products (Cases 1, 2, and 5). In fact, some industries (e.g., aluminum smelters) claim to be part of the solution to global warming. As stated by one environmental manager: “When you are looking at an aluminum ingot, you are looking at a block of energy which is reusable forever. The aluminum is a part of the solution. It’s a fact!” (Environmental Manager, Case 1). This neutralization technique is also present in the external literature reviewed. For example, in a submission for a public consultation on the Quebec’s Energy for the Future in 2013, an aluminum smelter (Case 2) justifies the importance of the industry by emphasizing the potential GHG reductions which would result from the use of aluminum in vehicle design. Among others, this claim is based on a study conducted by the Aluminium Association Transportation Group, which shows that the maximization of aluminum

use in the design of a Toyota Venza would reduce total GHG emissions over the vehicle's lifespan by 15 tons CO₂ (Aluminium Association Transportation Group 2013). This argument is also mentioned in this company's response to the Investor CDP survey in 2012:

When they are utilized (aluminum products) in place of heavier steel wheels, trucks realize significant fuel economy and GHG emission reductions over the life of the vehicle. We estimate that for every kilogram of weight saved, a truck will save 20-40 kilograms of CO₂ emissions over its lifetime. (CDP, 2012, Case 2)

In the same vein, some emitters mentioned the importance of analyzing the life cycle of products before making a judgment on the climate performance of large emitters (Case 1, 2, 7, 8, 10). The use of renewable energy and certain manufacturing processes was cited as methods that allow some companies to ensure an advantageous strategic position in comparison to their global competitors. In fact, a brief filed in 2009 to the Quebec Committee on Transportation and the Environment, a pelletizing company (Case 3) cites the importance of considering the life cycle of products. For example, they claim that the methods implemented in their facilities allow an emissions reduction of 30 % in comparison to steel works. The use of life cycle analysis to justify industrial activities is also an argument used in the aluminum industry. For example, one of the companies studied (Case 1) claims that it has "the lowest carbon footprint in the aluminium industry" in its annual report from 2013. Finally, some respondents emphasized the overall socio-economic contribution of the business and the need to contextualize GHG emissions, in particular taking into account the energy sources used:

Yes, we emit a lot of GHGs. However, there is more than just the question of the environment. This is the very principle of sustainable development. In judging our performance, one should not limit oneself to the environmental aspects. We contribute enormously to the economic development of the region. (Environmental Manager, Case 4)

We must stop simply saying: "Look at the emissions of big polluters." We must analyze product life cycle. One quickly realizes then that GHG emissions in Quebec are profitable for the planet. We must not forget that we use hydropower, a renewable energy. (...) Our competitors in the United States still use electricity produced by coal-fired plants. (Environmental Director, Case 10)

Denial and Minimization

The third neutralization technique consists in the denial or minimization of significant impacts of the company's GHG emissions on climate change. This type of legitimation was used primarily in companies from four distinct industries: pelletizing (Case 3), mining (Case 5), petrochemical (Case 8), and metallurgy (Case 10). The objective of this neutralization technique is to minimize the problem of climate change and the impact of emissions. Two arguments are mainly used to legitimize a company's operations. The first is to relativize industry emissions compared to the global carbon footprint or to that of other more polluting industries. For example, in a sustainability report published in 2012, one of the companies studied (Case 5) tends to minimize its impact by emphasizing the low contribution of the industry to overall emissions: "Total emissions of carbon dioxide due to lime production are relatively small compared to overall emissions." The two managers interviewed in this company also mentioned having tried to relativize their emissions by comparing them with the footprint of the cement industry in order to

negotiate its withdrawal from the list of large emitters with government authorities. In its 2011 annual report, a company in the petrochemical industry (Case 8) criticized the efficiency of climate policies and also attempted to downplay its contribution to global warming:

Current government regulations and proposals affecting greenhouse gases (GHGs) will hurt our industry. These regulations being discussed are bad for our industry, bad for consumers, bad for jobs, and bad for the country – and still would have no impact at all on global warming or climate change. (Annual Report, 2011, Case 8)

The second argument consists in denying or minimizing the importance of external pressures on climate change issues or relativizing the environmental impacts of this activity. This strategy allows companies to defend the legitimacy of their operations by downplaying the importance which is generally accorded to climate change and corporate responsibility in this area:

We have repeatedly met with government representatives to be removed from the list of large emitters. We do not like to be associated with activities such as the production of cement. We do not see ourselves as large emitters. We produce 10 times fewer emissions than cement plants. We simply do not want to be seen as big polluters. (Environmental Manager, Case 5)

Over the past 3 years, we've had no questions about our GHG emissions or our pollution in general. (...) We do not feel like big polluters who are responsible for climate change. It is true that it can raise the temperature, but in a Nordic region like ours... if you ask people, they will tell you that an increase will not hurt. It is for this reason that GHG emissions do not affect our image. (Manager of Operations, Case 3)

Denouncing Unfair Treatment and Deceptive Appearances

Challenging appearances was one of the three most used techniques of neutralization in the companies studied (70% of cases) to streamline their impacts. For these companies, the negative image of the industry is simplistic one that relies on deceptive appearances that do not reflect the complex reality of organizations and their real environmental commitments. Journalists, politicians, and the public are accused of a tendency to use the data disclosed under government initiatives without considering the context and the reality in which the companies operate. In general, they claim that stakeholders have insufficient knowledge of industrial processes and organizational realities to seriously evaluate the companies' efforts to reduce their carbon footprint (Cases 1, 4, 5, 9, and 10). The charges against the energy-intensive industry are claimed to be unjustified or disproportionate if one takes into account the companies' actions aimed at minimizing environmental impacts. As stated by one of the environmental specialists interviewed: "In terms of total tons, we are a large emitter, but we are also the company which has seen the greatest reduction" (Environmental Specialist, Case 1). Respondents claim that the negative image of large GHG emitters is disproportionate and does not do justice to their commitment to counteracting climate change, which is not sufficiently publicized or recognized at their true value. Companies in the petrochemical industry (Cases 7 and 8) also bemoan the lack of consistency among the consumers, who do not make the connection between their purchases and industrial GHG emissions. For these companies, consumers have a large share of responsibility for their emissions. For example, in a 2009 brief submitted to the Quebec Committee on Transportation and the Environment, a company involved in oil production (Case 8) stresses the influence of buying habits and vehicle use by consumers on its climate

performance and potential reductions in GHG emissions. Prejudices against the industry are seen to be considerable and to negatively affect the perceptions of stakeholders. According to the companies that express this view, the complexity of climate change and the lack of understanding of these issues by the public and the media unfairly affect the image projected by large emitters:

The media, the politicians and the public have no idea what the actual state of affairs is and what a 20% reduction of GHG emissions represents. They associate a chimney with pollution and do not understand the difference between dioxins, furans and GHGs. (Process Manager, Case 9)

We have a negative image, but this is unfair. The public may very well say we are large emitters, but the problem is that people do not make the connection with their own consumption. There is a link between consumption and production. (...) Imagine the consequences if, to reduce our emissions, we reduced our production by 20%! It would be a terrible social crisis! You may tell me that I pollute, but you're my client and we are connected. (Environmental Manager, Case 8)

Economic and Technological Blackmail

Economic and technological blackmail is one of the most used neutralization techniques by the companies studied (80% of cases). Unlike the above-mentioned techniques, which aim to improve the projected image, the objective of this technique is to present the organization as vulnerable and threatened by government action to reduce GHG emissions. Emitters acknowledge the problem of climate change, but emphasize the difficulties and risks of adopting overly restrictive standards. Two justifications are used to explain the inability to further reduce emissions. The first consists in stating that additional reductions will be difficult to achieve given the technical and technological limitations related to the production processes (Cases 1–4, 7–10). Companies argue that further improvements are impossible without the development of new technologies. In addition, some companies report having the best available technology economically achievable. For example, in a brief filed in 2009 concerning the emission reduction target for Quebec, a company in the pelletizing industry (Case 3) calls on the government to consider this fact in setting reduction targets in order not to undermine the competitiveness of Quebec companies. The second justification proposed by some large emitters (Cases 1 and 9) concerns the lack of financial resources and the economic risks associated with environmental investments. Climate change is not considered a priority and policies in this area may threaten competitiveness. Finally, in a response to the Investor CDP survey, a company in the metallurgy sector (Case 9) mentions the potential economic risks associated with regulations: “National regulations that do not consider the international competition that the steel market faces, as well as the operational cost increase that the initiative has on the industry, are a potential risk to our competitiveness” (CDP 2013, Case 9). This neutralization technique allows an organization to justify its lack of climate commitment or to make excuses should it fail to meet its reduction target:

It now takes us an immense effort to make improvements to the margin. We would need a technological breakthrough or a new method that does not yet exist. Governments must understand that there are fixed emissions at the level of processes. They must recognize that there is a level below which we can't go. (Public Affairs Director, Case 8);

There is often a gap between our rhetoric and our actions. No one is against the principle itself. However, there is the harsh reality of the budget. We simply do not have the means. This is not because of a lack of willingness on our part. (Strategy Manager, Case 9)

Blaming Others

The last neutralization technique, blaming others, aims to conceal the negative image associated with the impact of a company by focusing on the situation of other companies or sectors. This strategy was used by four companies (40% of cases). It allows a large emitter to justify its industrial activity by emphasizing the fact that more reprehensible practices are observed in other companies or sectors, which are considered to be even more polluting. This technique allows the company to divert attention from the problems observed in its practices (Cases 8 and 10) or to improve the image of the company while underlining its commitments (Cases 1 and 4). This justification can be found in various public communications. For example, in a submission published in 2009, a company in the petrochemical industry (Case 8) states that the industry has already reduced its GHG emissions by 7% compared to 1990 and that the focus should now be switched to the transportation sector, which is the largest emitter in Quebec with 40% of emissions. The statements of two managers help illustrate this strategy:

We only target industries. But the industries are already very familiar with the approach that they have to adopt or have already adopted. The largest share of emissions in Quebec comes from the transport sector. Why do we never hear about it? There is a lack of willingness and it is where it would be the easiest to cut without penalizing anybody. (Environmental Specialist, Case 10)

Most companies try to reduce their emissions. But I know one in Quebec [name of a competitor in the aluminum industry] that took a different strategy, that of “political capital.” It does not care about GHG. (...) The companies in our sector have focused on the reduction of anode effects. But I know that this competitor has not. It fell considerably behind and willingly so. (Environmental Manager, Case 1)

The Combination of Neutralization Techniques

The companies studied tended to apply several complementary neutralization techniques simultaneously to better influence the perceptions of stakeholders regarding their climate commitments. Such a combination involves different impression management strategies in order to influence the perceptions of stakeholders and to justify environmental impacts. Table 2 shows the occurrence of different neutralization techniques in the cases under study. The companies in different sectors used between two and five different neutralization techniques to influence perceptions concerning their image and reputation. In the aluminum industry, the self-proclamation of excellence, the promotion of a systemic view and economic, and technological blackmail strategies were used in the two cases from this sector. Although the strategies of impression management underlying the use of these neutralization techniques vary, they are similar in a number of aspects. On the one hand, these companies used their past achievements in terms of reducing GHG emissions to justify their inability to engage to a greater extent, particularly because of the absence of alternative technologies. On the other hand, they focused on the features of their products to demonstrate that they can indirectly contribute to reducing

emissions in other sectors, including transport, in the future. The two companies in the mining sector also used the strategy of self-proclaimed excellence, focusing on their achievements in environmental matters. Alongside this, they used the neutralization technique of unfair treatment and deceptive appearances by claiming that the negative image projected by their industry is not representative of the actual state of affairs. In addition, mining companies were the only ones that did not make use of the technique of technological and economic blackmail, and preferred instead to promote a positive or idealized image. In contrast, the companies studied in the pelletizing industry emphasized their inability to further reduce GHG emissions because of technological and technical limitations (economic and technological blackmail). They legitimized their operations by emphasizing economic results (Case 4) and the importance of taking a product's life cycle into account (Case 3). Companies in the petrochemical and metallurgy industries adopted the most similar impression management strategies. They stressed the importance of globally analyzing the products and the impact of industries. They also bemoaned the lack of contextualization of emissions data and drew attention to the lack of technological alternatives for improving production processes (Case, 7, 8, 10) or the economic and financial risks related to investment (Case 9). Finally, some neutralization techniques, such as blaming others and the denial of climate change, were observed in most of the different industries studied.

Table 2 Description and occurrence of neutralization techniques

Neutralization technique	Description	Aluminum		Pelletizing		Mining		Petrochemical		Metallurgy		Overall
		1	2	3	4	5	6	7	8	9	10	
Self-proclamation of excellence	Promoting an idealized green image, focus on commitments and awards received, and exemplification of the company	X	X			X	X					4
Promotion of a systemic vision	Extended vision of the life cycle of the product, emphasis on economic, social and environmental benefits of the company's activities	X	X	X	X	X		X	X		X	8
Denial and minimization	Trivialization of the potential impact of global warming and minimizing corporate responsibility			X		X			X		X	4
Denouncing unfair treatment and deceptive appearances	Criticism of simplistic interpretations of the environmental impacts of businesses, need to provide context information on the subject	X				X	X	X	X	X	X	7
Economic and technological blackmail	Emphasis on economic and technological constraints of environmental commitments, which may threaten the survival of businesses	X	X	X	X			X	X	X	X	8
Blaming others	Search for scapegoats, relativization of the company's impacts and focus on organizations or sectors considered to be more polluting		X			X			X		X	4
Overall		4	4	3	2	5	2	3	5	2	5	

Note The z-scores were also measured to compare the levels of emissions from firms to the mean ($M = 782\ 040.4$, $SD = 549\ 275.89$). For emissions scores, all the values had z-scores between -1.17 and 1.3 .

Discussion

The objective of this study was to explore impression management strategies used by large emitters to legitimize the impacts of their operations on global warming through the use of several complementary neutralization techniques. The ten cases studied show that companies tend to use six main techniques of neutralization to justify their significant impacts in this area. Each studied company used between two to five techniques. Strategies also varied from one industry to another. This variability is interesting if we consider that the majority of studies on policy actions have been limited to one sector or that they have not considered the distinctions between different industries (Levy and Egan 2003; MacKay and Munro 2012; Nyberg et al. 2013). In addition, this study allows us to highlight certain strategies that have been little addressed in the literature on climate change, such as blaming others and the denial of responsibility (e.g., promotion of a systemic view and denouncing unfair treatment and deceptive appearances).

Contributions

This study offers four main interrelated contributions.

First, it contributes to the literature on corporate climate strategies by identifying the key communication approaches used by large emitters to justify their impacts or poor performance. The incongruence between the companies' public statements on climate change and their real actions has already been highlighted in the literature (Domenec 2012; Ihlen 2009; Jones and Levy 2007). However, the communication strategies underlying these public statements have not been studied in depth. In addition, previous studies have been mostly based on secondary data (e.g., Cowan and Deegan 2011; Domenec 2012; Ihlen 2009; Prado-Lorenzo and Garcia-Sanchez 2010; Hahn and Lülfs 2013). This study helps to fill this gap in the literature through a qualitative study based on primary data.

Second, this study demonstrates the relevance of the concept of impression management for describing the different communication and legitimation strategies used by polluting companies. The approach has rarely been used to study the behavior of organizations (Bolino et al. 2008; Fooks et al. 2012; Maruna and Copes 2005). Impression management theory is relevant to a better understanding of the strategies used by organizations to promote their achievements and minimize their responsibilities. The study thus addresses a gap observed by MacKay and Munro (2012) regarding the lack of theoretical analysis of information strategies. In addition, it contributes to the literature on impression management by focusing not only on the strategies directly aimed at improving the reputation of the organization, but also on the more defensive ones concerning legitimizing negative aspects (Bolino et al. 2008; Mohamed and Gardner 2004; Hahn and Lülfs 2013).

Third, this study contributes to the more specific literature on neutralization techniques. This literature has in fact mainly focused on the analysis of rationalizations used by individuals to justify deviant behaviors or ethically questionable situations (Strutton et al. 1994; Sykes and Matza 1957; Vitell et al. 2011). The few studies that analyze the neutralization techniques used by companies primarily focus on defensive reactions to pressures from certain stakeholders

(McCormick and Zampa 1990), risks associated with the use of the company products (Fooks et al. 2012; Stuart and Worosz 2011), and justifications for unethical behavior by managers (Vitell and Grove 1987; Vitell et al. 2011). To our knowledge, no studies so far have been devoted to neutralization techniques justifying impacts in the area of climate change. However, most neutralization techniques identified in this study may be related more or less precisely to those observed in previous research. In fact, denial and minimization, blaming others, and questioning appearances are fairly common neutralization techniques and they have been observed in previous studies of individuals or organizations (Fooks et al. 2012; Peretti-Watel 2003; Sykes and Matza 1957). Other neutralization techniques observed were rarely addressed in the literature. This is the case of economic and technological blackmail, even though this neutralization technique can be indirectly related to the “defense of necessity” (Minor 1981) and the “appeal to higher loyalties” (Sykes and Matza 1957). The same applies to companies’ self-proclamation of excellence, which seems to have been overlooked in previous research, but may be indirectly related to communication strategies based on the exemplification of the business (Nyberg et al. 2013; Boiral 2013). Promoting a systemic view does not seem to have been addressed in previous studies and appears to be more specific to impacts in the area of climate change, which are particularly complex and controversial. Therefore, in general, this study contributes to highlighting neutralization techniques which have been explored to a limited extent or not at all. It also shows the manner in which certain techniques that have already been identified in the literature may be applied in the very specific context of climate change.

Four, this study allows us to shed greater light on the links between the use of various techniques in the different industries studied. While some authors have shown how individuals tend to use more than one neutralization technique to dilute the guilt associated with wrongful behavior (Chatzidakis et al. 2004; Cromwell and Thurman 2003), this trend does not appear to have been observed in an organizational context. The neutralization techniques observed in this study are not used in an isolated way but rather in combination. Moreover, they seem to reflect underlying impression management strategies adopted both in official corporate communications (e.g., sustainability reports and financial reports) and in managers’ rhetoric. These strategies tend to swing between two extremes (see Table 2) that can be linked to different theories of organizations and communication: organizational narcissism versus defensive strategy. At one extreme, organizational narcissism is reflected in optimistic techniques of neutralization, notably the self-proclamation of excellence and the promotion of a systemic vision. These techniques clearly exaggerate the actual commitment to climate change issues and therefore reflect a narcissistic rhetoric intended to positively influence the perceptions of stakeholders. The self-proclamation of excellence can be related to the literature on organizational narcissism (e.g., Duchon and Drake 2008; Ganesh 2003; Stein 2003), which to our knowledge has not focused on corporate strategies for climate change. More generally, legitimacy theory, which is widely used in the literature on corporate sustainability (e.g., Besio and Prozini 2013; Cho et al. 2012; Deegan 2002; Boiral 2013), has focused on the tendency of organizations to disclose positive information to improve their social legitimacy and to respond to institutional pressures. Nevertheless, this literature has overlooked the way organizations justify negative issues. At the other extreme, certain techniques of neutralization such as blaming others, economic blackmail, or denouncing unfair treatment reflect a defensive impression management strategy intended to defend, through critical arguments, the image of the company from external pressures and criticism. Contrary to organizational narcissism, this defensive strategy is not focused on

organizational apology but rather on arguments to underplay corporate responsibility and blame others for climate change issues. This approach can be related to the literature on defensive impression management strategies (Ogden and Clarke 2005; Mulvey et al. 1998; Stevens and Kristof 1995) and scapegoating (e.g., Boeker 1992; Bonazzi 1983; Eagle and Newton 1981). This literature, like the literature on techniques of neutralization in general, has overlooked environmental issues (Hahn and Lülfes 2013) and remained mainly focused on individual behaviors. One important contribution of the study is to show how companies can use a wide array of neutralization techniques ranging from organizational narcissism to scapegoating, and which are related to different theoretical backgrounds that have thus far overlooked environmental issues.

Limitations and Directions for Future Research

The qualitative and exploratory nature of this study limits generalizing its results. In fact, the legitimation and communication strategies used by companies may have been influenced by the uncertain political context of Canada and Quebec. Certain elements, such as the official withdrawal of Canada from the Kyoto Protocol on December 15, 2011 (Environment Canada 2012b) and the introduction of a cap-and-trade system of emission rights for the industrial sector under the Western Climate Initiative in 2013 (Government of Quebec 2012), have changed the regulatory environment in which businesses operate. Nevertheless, the analysis of these political changes and their impact on the development of neutralization techniques would require a larger study involving more diversified respondents, including government representatives. Future research could analyze how techniques of neutralization are used in lobbying practices and negotiations with the government. Future research could also verify if and how these techniques are applied in other jurisdictions, regulatory environments, and political contexts. Generally speaking, environmental pressures shape managers' perception of issue salience (Bansal and Roth 2000; Bundy et al. 2013). Future research could investigate how issue salience, defined as the "the degree to which a stakeholder issue resonates with and is prioritized by management" (Bundy et al. 2013, p. 352) can influence the adoption of different techniques of neutralization. Although the companies analyzed in this study were all considered to be large emitters by public authorities, the issue of climate change is not necessarily perceived as salient within certain organizations. For example, it would be interesting to investigate how the managers of various polluting SMEs perceive the salience of climate change issues and how they legitimize their impact in this area.

The study also has practical implications for different stakeholders. At the political level, it allows decision makers to better interpret companies' activities, particularly with regard to their capacity for action. Generally speaking, the results of the study could help stakeholders interested in climate change to develop a more critical view on the impression management strategies underlying corporate statements on this issue. It would be relevant to assess in the future the impacts of the different techniques on the perceptions of politicians, the media, and the public. Which strategies are the most effective in influencing stakeholders? Can some techniques, such as economic and technological blackmail, influence the adoption of certain public policies? What credibility do the different stakeholders (environmental groups, governments, the public) grant to these impression management strategies? Some strategies, such as the funding of fake grassroots organizations by big polluters to support their positions and

arguments on climate change, have already proved to be somewhat efficient in creating doubts among the population about the veracity of global warming (Cho et al. 2011). Additional studies are also needed to understand the influence of neutralization techniques on policymakers. How different stakeholders could respond to impression management strategies in order to prevent misinterpretations and limit the influence of misleading information released by organizations is another topic that could be investigated. Finally, this study does not allow for the analysis of changes in the companies' attitudes toward climate change. It would be interesting to conduct longitudinal studies in order to better assess the evolution of a business's justifications and attitudes vis-à-vis external pressures on this issue, which is highly complex and central to contemporary environmental debates. For example, future research could investigate how oil companies, which represent an important part of GHG emissions worldwide, have changed their positions and strategies on climate change over time and how these changes influence the techniques of neutralization used in this area. Such a longitudinal analysis would further elucidate the complex relationships between environmental strategy and corporate rhetoric based on neutralization techniques. More generally, it would be pertinent to pay particular attention to factors that may explain the communication and impression management strategies adopted by companies. Factors such as the level of pollution, geographical position, and the external pressures perceived by the company could influence these strategies.

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