

Climate Capitalists and Activists:
Anticipating Media Barriers for Civic Engagement with Climate Change
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Media coverage of climate change and collective action

The widespread assumption of continued fossil fuel development among political and economic elites is incommensurate with the projection that surpassing safe levels of global warming will occur by burning *already* developed fossil fuel sources (Muttitt, 2016; McGlade & Ekins, 2015). This demonstrates the need for bottom-up, civic participation to exert sufficient pressure to avoid cataclysmic climate change. Brulle (2010), Bonds (2016), and Gunster (2011b), all recognize the desperate need for bottom-up pressure and civic engagement. Further, they recommend communication of efficacious action that is largely unknown to many concerned about climate change and other environmental crises.

Generally, media coverage of climate change in Canada has revolved around a couple of national and international events, such as the Copenhagen conference in 2009 (Gunster, 2011a). According to Cross, Gunster, Marcelina, and Daub (2015), focus on the failure and inefficacy of these distant and infrequent events has contributed to a “reluctant cynicism” and a “deep ambivalence” toward collective action. Their observed cynicism of efficacy corroborates findings in Gunster (2011a) and Immerwahr (1999).

These sentiments can constrict individual motivation toward collective action, even for those highly concerned with climate change. In their qualitative study, Cross et al. (2015) noted a recurring tendency for participants to revert to individual and consumer-based actions when asked about addressing climate change. Even after participants were primed with a news story of successful and local civic action, which temporarily elicited optimism for such behavior, reversion to apolitical action and the disposition of reluctant cynicism were still observed.

In a review of British Columbian media coverage of the Copenhagen summit, Gunster (2011a) found multiple narratives commensurate with public reactions seen in Cross et al. (2015). Surprisingly, troubling narratives were *not* necessarily those of skepticism toward the anthropogenic influence on climate change. Instead, Gunster (2011a) found that a strong proportion of coverage was based on specific political narratives: the choice between the economy and the environment; the saliency of adverse impacts without coverage of positive, preventative, and mitigative actions; the inevitability of political failure without coverage of political successes; and the contempt of environmental activists often characterized as ideological alarmists.

Carvalho (2010) demonstrates how narratives of climate change and politics are mediated through media coverage: perceptions of political efficacy are more directly associated with media coverage than with genuine opportunities available to audiences and constituencies (as cited in Gunster, 2011b). Resembling Cross et al. (2015) and Gunster (2011a), Carvalho (2010) outlines three main ways through which media probably constrains perceptions of political efficacy: (1) event centric coverage; (2) representation of movements as one-dimensional and hostile; and (3) representation of citizens as passive, reactive, and self-interested.

Although these types of coverage are postulated to interact with the cynicism observed by Cross et al. (2015), these frames were not uniform (Gunster, 2011a). In some cases, alternative media provided coverage of sustainable benefits and successful engagement with political activism. Perhaps comparing the narratives of sources with which potential civic participants engage can help inform attempts to engage citizens concerned with environmental issues in collective action.

Cross et al. (2015), Gunster (2011a), and Carvalho (2010) have all called for media coverage on climate change to include successful initiatives, examples of collective action, and concrete ways citizens can engage with the issue beyond consumer actions. Others, such as Brulle (2010) and López (2010), further criticize the use of “universal,” top-down frames for climate change communications. For citizens to truly engage in the issue, they argue that local political engagement—and by extension local media engagement—is more effective and ethical than “mechanistic” and mass-market orientated campaigns:

While I agree that repetitive images and concepts strengthen environmentally destructive thinking, Lakoff’s (2009, para. 6) claim that frames build circuits inside our minds, and his overall suggestion that we replace one framework with another (“progressive” instead of “conservative”), are reminiscent of mechanistic strategies for programming minds. The solution—mass media framing—still does not transcend the problematic construction of industrialized communication that abstracts and flattens the audience. Such would be the effect, I believe, of ecoAmerica’s advocacy for incorporating research-tested terms like “freedom,” “national security,” and “made in America,” which feel more like pandering to an abstract political discourse rather than cultivating awareness, responsibility, and action (López, 2010, p. 103).

Alternative media potential

To evaluate examples of coverage that deviate from dominant frames on climate change, Gunster (2011b) systematically reviewed—using qualitative critical discourse analysis—climate

change related articles from two Vancouver-based independent media organizations: *The Tyee* (145 articles) and *The Georgia Straight* (216 articles) written during 2009.

These sources demonstrated many of the alternative frames called for in communications literature, particularly those that contrast with ubiquitous media narratives, such as coverage of (inevitable) failure, lack coverage on political action (e.g., focus on settling the debate), international dependence (rather than local and national efficacy), apolitical coverage of the “green economy,” avoidance of big-picture questions, and contempt for climate activism.

Gunster (2011b) observed overt contrasts in how *failure* was covered between mainstream media and these independent media organizations: “Alternative media...combine extensive investigation of failures of existing political institutions with compelling and often inspirational accounts of how activist political engagement can transform those institutions into powerful and positive forces for change” (p. 5). As for political presence, these media sources featured climate politics as the dominant theme rather than just saturating coverage with scientific explanation and non-political voluntary action. Of the solutions to climate change that these sources featured solutions, 60% were political, 20% were voluntary or lifestyle, and 25% were technological (as coded by the researchers).

Rather than frames exclusive to international dependence, local and national governments were often framed as the most effective and realistic means for potential change. These entities still received harsh criticism, but also praise when appropriate. Thus, provincial articles often emphasized administrative hypocrisy: while they acknowledged noticeable strategies to curb emissions (e.g., carbon tax, joining the western climate initiative), they also targeted policies that resulted in increased GHG output (e.g., subsidies for local oil and gas, support of the Enbridge pipeline and infrastructure).

The green economy frame was recurrent in these alternative media outlets, but this frame has also been occasionally seen in mainstream media. Organizations like ecoAmerica claim this frame can bypass the “jobs vs. environment frame,” and perhaps they are correct. However, this frame can also be depoliticizing, predisposing audiences to consumer orientated solutions, which can then facilitate complacency, tokenism (see Gifford, 2011), and a false sense of security.

Depoliticization of the green economy, and the avoidance of many other political issues (e.g., the role of government in solutions), could be reflective of reluctance to address system-level critiques and questions, or even to acknowledge their existence. In contrast, *The Tyee* and

The Georgia Straight occasionally asked big-picture questions about government's role in addressing climate change during their frequent evaluations of provincial government performance on the issue. According to Gunster (2011b), this habit reinforced "the connection between climate change as a global environmental crisis and local political institutions as the most relevant sphere of action for those interested in the topic" (p. 12).

Gunster (2011b) found that the largest difference between mainstream media and the two sources analyzed was the "sympathetic coverage" of climate activism. Rather than passive consumers, audiences were engaged citizens; rather than injunctive calls to action, concrete examples of successful activism were provided. "Most importantly, it transformed such politics from a spectacle to be observed into a site of struggle, a fluid and dynamic space of political action in which members of the public can and do intervene to shape the policies and priorities of government" (Gunster, 2011b, p. 17).

Cross et al., (2015) demonstrate the potential of parallel narratives, such as "everyday heroism," which can demonstrate political actions as tangible, performable behaviors with potential for real impacts (e.g., Stueck, 2013; "Kevin Washbrook Makes Coal a Burning Issue"). However, they emphasized the need for repeated exposure to prevent efficacious and optimistic sentiments from dissipating.

Gunster (2011b) demonstrates incredible potential for alternative media in this pursuit. However, he admits that many forms of alternative media exist, many of which are not sympathetic to efforts of collective action on climate. While alternative media sympathetic to climate activism has demonstrated potential to affect public opinion, narratives that reject action on climate change have immense structural and financial support. How can repeated exposure to cases of successful climate activism break through other narratives that saturate western media; especially when narratives of technocratic dependency as well as narratives that deny existence of the problem are regularly imposed?

Funding for the climate change counter movement

Optimal dissemination of politically efficacious climate change coverage will not happen overnight, and it may never happen. Indeed, the duration of the "debate" over anthropogenic causes demonstrates massive, coordinated barriers to productive coverage (National Research Council, 2011, p. 35; as cited in Brulle, 2014). McCright and Dunlap (2000) demonstrated

evidence of a concerted counter movement, largely supported by US conservatism, challenging the legitimacy of climate science and of climate change as a social problem.

Using social network analysis (SNA), Brulle (2014) analyzed monetary connections within a network of 140 conservative philanthropic foundations and 91 climate change counter-movement (CCCM) organizations. IRS Income data were extracted for the period of 2003 to 2010. These 91 organizations reported a total income of more than \$7 billion over the eight-year span, averaging \$900 million dollars a year, with an \$80 million average annual increase: From 2003 to 2010, the total annual income of these organizations effectively doubled, rising from \$640 million to \$1.2 billion.

The largest known funder is the combined Donors Trust/Donors Capital Fund, providing \$78 million in funding to CCCM organizations over the 2003-2010 period (Brulle, 2014). A primary measure of social network analysis is the *node degree*: which, in this case, means the influence of each foundation within the network. This is measured by the number of organizations funded by a specific foundation as a percentage of the total number of funding links in the entire network. Over the period measured, the node degree does not dramatically rise for the Donors Trust/Capital Fund, but remains consistently overwhelming: “Out of the 51 CCCM organizations that received foundation funding from the top 22 foundations, Donors funded 35, or nearly 70% of them” (p. 692).

However, the *node strength*—in this case, the percentage of total foundation funding—rises dramatically for Donors Trust/Capital, from around 3% in 2003 to 24% in 2010. This indicates that their increased influence is not because of increases in total grants distributed, but because of rapid funding increases allocated for each grant.

While financial support from the Donors Trust/Capital foundations dramatically increased over time, publicly reported financial support from crucial foundations decreased (e.g., Brady Education Foundation, ExxonMobil Foundation, Koch Affiliated Foundations). This might be associated with the donor directed structure of the Donors Trust/Capital. For these organizations, donors supply funding, then the foundation administers grants based on the preferences of the donors: However, contributions to a donor directed foundation are not required to be made public, allowing donors to contribute to their preferred organizations anonymously.

In tandem with this trend, Brulle (2014) notes the decline in overall traceable funding that is coinciding with the dramatic rise in funding from the Donors Trust/Capital. In 2010, CCCM organizational income from unknown sources was 2.5 times the amount in 2003 (\$476 million vs. \$187 million): in other words, CCCM income from unknown sources increased from 29.2% to 39.9% of total income from 2003 to 2010. Although this trend did not follow for non-tax deductible advocacy organizations (501 C4s), 99.5% and 80% of their total income came from unknown sources in 2003 in 2010 respectively.

Brulle (2014) did not demonstrate sufficient evidence to conclude that financiers of these foundations were rechanneling their support of the CCCM through the Donors Trust/Capital foundation to hide their connections. However, increased support from the Donors Trust/Capital foundation also coincided with exposure of these financial support systems by environmental organizations (e.g., Union of Concerned Scientists). Any reasonable judge should acknowledge the plausibility of rechanneled financial support. Indeed, only a decreasing fraction of contributions to CCCM organizations can be publicly accredited.

Other key funders still maintained significant financial support for CCCM organizations: “the combined Scaife and Koch Affiliated Foundations, and the Bradley, Howard, Pope, Searle and Templeton foundations, all (gave) more than \$20 million from 2003–2010” (Brulle, 2014, p. 687). Only twenty-two foundations provided 77.4% of the total funding for CCCM organizations between 2003 and 2010.

Brulle (2014) concludes that “the organizational structure of the CCCM is fundamentally identical to that of the overall conservative movement, making it legitimate to view the former as a component of the latter” (p. 692). Recipients of the largest funding amounts were often traditional conservative think tanks (e.g., the Hoover Institute, the American Enterprise Institute, the Heritage Foundation, the Cato Institute). Many of these foundations generally promote neoliberal free-market ideas, and have extended their support of these causes to encompass climate change.

The support structure for these groups is elegant and well supported. However, what are financiers getting as a return on investment? To what degree are CCCM narratives exhibited in mainstream media? How much influence does the CCCM actually exert?

Influence of the CCCM

Farrell (2015) also applied SNA to the CCCM. Rather than basing network associations on the amount of financial support, associations were based on inter-individual links between organizations. SNA was accompanied by latent semantic analysis, which was used to discern ideas of contrarian organizations that were prominent in media and politics. Latent semantic similarity analysis was also used to compare discerned contrarian ideas with those of major US news outlets (i.e., New York Times, Washington Times, and USA Today), US presidents, and floor occurrences on the US Congress. Finally, multivariate OLS regression analysis was used to compare the influence of different variables on the semantic similarities between contrarian organizations and news media outlets.

Farrell (2015) identified 4,556 individuals and 164 organizations in a social network of climate change contrarianism. Farrell (2015) claims to have “collected the entirety of all written and verbal texts about ‘climate change’ or ‘global warming’ from 1993-2013 from every contrarian organization (40,785 documents containing over 39 million words)” (p. 370).

Contrarian groups were distinguished based on their corporate benefactors. Farrell (2015) claims that ExxonMobil (EM) and the Koch family foundations (KFFs) are the most indicative of corporate support, and the most reliable across the period studied. These choices are based on Oreskes and Conway’s (2010) *Merchants of Doubt*, and Brulle’s (2014) corporate networking study.¹ In the social network structure of the contrarian organizations, Farrell (2015) did not find multiple clusters of sub-networks, but one large network (similarly to Brulle, 2014) in which the source of funding (i.e., EM and KFFs) accounted for more organizational centrality

¹ These are strange choices to represent indicative corporate benefactors considering Farrell’s (2015) reference of Brulle (2014). Although both EM and KFFs are among the top supporter foundations for the CCCM, Brulle observed the most significant supporter was clearly the Donors Trust/Capital. Also, Brulle demonstrates that the Scaife Affiliated Foundations (SAF), and the Lynde and Harry Bradley Foundation (LHBF) were far more consistent in their percentage of the total foundation funding. Additionally, funding from the Donors Trust/Capital and the LHBF clearly have the most connections in Brulle’s sociogram of the CCCM: the relative node degree for the Donors Trust/Capital is by far the highest from 2006 to 2010, and is still very high in 2004 and 2005. The LHBF, and the SAF have the next highest node degrees, as well as the most consistent node degrees (see Brulle, 2014, supplementary material).

The KFFs were not necessarily a bad choice; however, Brulle (2014) clearly demonstrated better choices. And the ExxonMobil Foundation might actually have been a bad choice, with node degree and node strength both sharply plummeting to 0.0, which is maintained through 2010. EM is not even significant enough to be visualized on Brulle’s sociogram. These metrics may have been different for Farrell’s (2015) 165 chosen organizations, or perhaps these metrics fluctuated if Farrell choose to only concentrate on think tanks and advocacy groups, both of which are independent variables in his regression analysis. However, reasons beyond prototypicality and consistency are not provided. A similar analysis that differentiates between support from other foundations may be useful.

(i.e., interorganizational individual ties) than did total organizational assets and amount of corporate funding: Organizational centrality within this contrarian network was influenced by who provides funding, not the amount of funding received.² Although this illuminates connections of particular corporations within the contrarian network, it does not help discern their reach beyond that network.

With latent semantic similarity analysis, Farrell (2015) found the news media held the highest semantic similarity with contrarian organizations, along with the largest increase in similarity over time. Their “cosine similarity score,” which ranges from 0 (no similarity) to 1 (perfect similarity) was between 0.15 and 0.25.³ This suggests that foundational support for the CCCM is effective to some degree on media coverage of climate change, and has been growing more effective.⁴ Little semantic similarity was seen in presidential or congressional texts.

Farrell (2015) also used multivariate regression to discern influences on CCCM organizational semantic similarity to news media discourse.⁵ Out of eight IVs tested, four were significant: ties to corporate benefactors (TCB), being an Advocacy group, being a think tank, and the year of texts. The other variables (i.e., mission focus, network centrality, assets in the organization, and the year founded) were entered into subsequent models *after* an original model with TCB and year of texts was tested: Farrell (2015) claims that this procedure tested for the effect of TCB while controlling for other variables (e.g., centrality). *F*-tests to compare the explanatory value of the models and coefficients of determination were not provided.⁶

Farrell (2015) did not find an association between organizational assets and their semantic similarity with news media. Similarity between organizational and news media semantics (what Farrell claims to be indicative of organizational influence) is not primarily about organizational assets (i.e. financial power). Rather, it is “about network power, whereby organizations gain entry into a well connected and powerful core of the network” (p. 373). Importantly, this core is not measured by centrality, it is differentiated based on who is funding

² Initially, this would seem to be in contrast with Brulle’s (2014) findings, but direct comparisons are difficult.

³ A reference to interpret these scores was not explicitly given. Because this is a logarithmic function, the meaning of a score that is not very close to 0 or 1 is unclear.

⁴ Again, because of the logarithmic function, this source only provides evidence for CCCM influence on media relative to that of presidential and congressional texts.

⁵ Semantic similarity scores are the only DV given, which would indicate univariate regression analysis.

⁶ β s are provided, but these are very hard to interpret because scales for many IVs are not provided and the scale for the DV (i.e., 0-1 result from a logarithmic function) is also difficult to interpret.

the organization (i.e., TCB). Further, the organizational type (i.e., advocacy group or think tank) may be even more predicative of an organization's semantic similarity with news media.

In sum, Farrell (2015) provides some evidence of rhetorical similarity between CCCM groups and major news media outlets. Further, Farrell (2015) claims this similarity is indicative of who supports such CCCM groups, and not the total funding these groups receive. Without further analyses, directionality between the CCCM and news media is inconclusive; however, intuition suggests that CCCM groups—as producers of research and advocates for policy—are more likely to influence news media than vice versa. Farrell's (2015) findings indicate that the level of contrarian discourse in the news media might not be a direct function of financial support levels, but a function of the source of that financial support.

Beyond denialism

Farrell (2015) and Brulle (2014) based their inquiries explicitly on climate change denial, and although Farrell found a higher proportion of semantic similarity in media than in congressional or presidential texts, the semantics were still more dissimilar than similar. The ubiquitous media narratives that Cross et al. (2015) suspects of facilitating cynicism in those concerned about climate—the same narratives to which Gunster (2011b) demonstrates promising deviations in alternative media—these narratives do not explicitly deny anthropogenic climate change. Denial has played a role in the delay of action from western governments, but deniability has little to do with the lack of civic action from already concerned citizens. How does influence of other advocates of economic policy (e.g., think tanks, advocacy groups) compare to that of the CCCM? Also, what narratives, if any, do other policy advocates perpetuate around appropriate climate action?

Bonds (2016) chose fourteen of the most influential US think tanks of 2014—as judged by the 2014 Global Go To Think Tank Index Report (McGann, 2015)—to analyze for climate change discourse and responses. Corporate elites seem to typically agree on some points of view (e.g., trade law, labor conflict); however, climate change is not one of these (Domhoff 2014; as cited in Bonds, 2016). Think tanks that promote denial, also amongst the highest funded and most interconnected CCCM organizations in Bulle's (2014) analysis, are in the top 25 think tanks worldwide and the top 15 think tanks in the US. These include the Cato Institute (#16, #8), the Heritage Foundation (#17, #9), the American Enterprise Institute for Public Policy Research (AEI: #24, #12). The Hoover institute was also ranked 19th in the US.

However, seven other US think tanks with higher world standing *do not* deny anthropogenic climate change, and three of these rank in the world's four most influential think tanks. The Brookings Institution is the top-rated think tank in the world, and one of the other seven think tanks—the Peterson Institute for International Economics—is judged as conservative by Bonds (2016)⁷.

Nevertheless, climate denialist think tanks still maintain media influence. McGann (2015) ranks denialist think tanks closer, or equal to leading US think tanks in best use of media, best use of the internet, public engagement, and best use of social networks. For example, in these respective categories, the Cato Institute is ranked 12th, 2nd, 9th, and 4th. Non-denialist US think tanks are still ranked higher in most of these areas (e.g., The Brookings Institution, Carnegie Endowment for International Peace), but think tanks within the CCCM have significant outreach ability, especially when compared to their “progressive” counterparts.⁸

Bonds (2016) acknowledges the disproportional influence of denialist organizations in the US and their damages: institutionalization of delay of significant climate action, polarization of the issue, economy vs. environment narrative, defeat of Kyoto. However, he also identifies three narratives of climate change buttressed by think tanks potentially even more influential, which might better explain the sentiments prevalent in Cross's et al. (2015) participants. First, many of the top ranked think tanks have advocated for “policies for limited climate change mitigation.” Supported by corporate “moderates,” these policies are usually market based, technocratic measures that require national or international implementation (e.g., carbon tax, emissions trading scheme). They are also extremely supportive of natural gas development.

The second prevalent narrative identified by Bonds (2016) is “climate change adaptation/privileged accommodation.” This discourse begets developments such as climate change adaptation decision making models (WRI), and the Brookings Institution's legal framework for humanitarian resettlement. Such schemes often reinforce standardized US policies toward instability management, including maintenance of the pervasive “necessity” to facilitate global capital accumulation.

⁷ Classifications are ostensibly based the US political landscape. They include the following labels: ultraconservative, conservative, corporate “moderate,” Libertarian, and Liberal.

⁸ The Center for American Progress (CAP) and the World Resources Institute (WRI) were the only Liberal think tanks on Bonds's (2014) list. On outreach measures, the WRI ranks low or does not rank (see McGann, 2015).

“Privileged accommodation” is also evident in the securitization of climate change. While this has been primarily undertaken by the military itself, some think tanks concentrate in this area (e.g., the RAND Corporation, Center for a New American Security; CNAS). The CNAS has “conducted climate-related war games” (Bonds, 2016, p. 313) and made policy recommendations. These recommendations are largely reactionary; they do not focus on the prevention of instability—typically, violent conflict threatening economic exchange—but on how to maintain and implement US geopolitical dominance in periods of deteriorating stability.

The third narrative that Bonds (2016) discusses is “climate opportunism:” the identification of profit opportunities from climate transformations and crises. Most evident is the push for opportunistic policies on Arctic development, what Scott Bergeson describes as “emerging epicenter of industry and trade akin to the Mediterranean Sea” (Bergeson, 2013; as cited in Bonds, 2016). Proposals often include new rules for Arctic oil drilling as well as icebreaker construction. Other examples include water privatization, genetic modification, and creating companies that specialize in climate adaptation (e.g., sea level rise). Lastly, Bonds (2016) acknowledges that future narratives may quickly become pervasive in elite circles (e.g., promotion of solar radiation management with sulfur particulate—climate engineering), and he calls for further research into other existing and emerging narratives.

The research generated from these institutions may be useful, as may critical considerations of such ideas on an individual basis; however, the mild proposals for preparation and adaption may not be orientated to benefit those who will suffer the most from climate change (i.e., the global south), especially if “resilience” and “stability” are prioritized for current economic paradigms rather than overall living standards. Bonds (2016) stresses a deep skepticism in the effectiveness of these elite proposals, not in their intention of circumscribed GHG reductions, but in their pursuit of reconstructing economic infrastructure without dependence on fossil fuels, especially at the rate needed to humanely engage with climate change.

From a bottom-up perspective, these narratives plainly coincide with the sentiments described by Cross et al. (2015), and the media frames described by Gunster (2011a; 2011b). They describe a worldview that limits solutions to those of non-democratic, technocratic, market orientated, national, multinational, and international action. However, in his concluding

thoughts, Bonds (2016) promotes using analyses of these policies, research projects, and narratives to support transformative social movement necessary to solve the climate crisis.

Beyond indifference

While division exists between prominent public policy organizations who deny the anthropogenic causes of climate change and those who give “lip-service” to addressing the issue, others still, make addressing climate change a primary target of their research and advocacy. Sapinski (2015) reiterates Bonds’s (2016) and Domhoff’s (2014) identification of the division over strategy to address climate change within the corporate elite. The current “carboniferous capitalist” regime facilitates a fossil fuel driven business-as-usual strategy. However, the strategy of climate capitalism is also growing, which “designates the neoliberal attempt to mitigate climate change through market measures that turn aspects of nature into new means of accumulation while minimizing end-of-pipe, direct state regulation of greenhouse gas (GHG) emissions” (Sapinski, 2015, p. 268).

Important, however, is the shared promotion of market-based mechanisms as solutions to social problems. Sapinski (2015) describes corporate-funded climate and environmental policy groups (CEPGs) and their role in knowledge production and mobilization (KPM) for corporate “solutions” to climate change. In line with “environmental neoliberalism” (see Büscher & Fletcher, 2015; Sullivan, 2013; as cited in Sapinski, 2015), as well as some policy proposals discussed by Bonds (2016), they typically advocate for reduced state intervention and voluntary corporate measures to facilitate technological innovation, which they claim only businesses should create, provided that states apply an appropriate setting for them to do so.⁹

The extent to which these narratives have potential to further permeate the corporate elite and eventually become hegemonic is unclear. To explore this, Sapinski (2015) performed a social network analysis (SNA) investigating the connections between CEPGs and corporate elite networks, operationalized as the 500 largest corporations in the world (G500; i.e., the largest 400 industrial firms based on revenue, and largest 100 financial firms based on assets). Ten organizations were chosen as CEPGs, based on their transnational reach and mandate, as well as their role in the generation of climate capitalist KPM.

Generally, corporate funded think tanks and advocacy groups help legitimize types of economic government conducive to their worldviews, delegitimize those that are not, and serve

⁹ For an exception, whose policy Sapinski describes as “neo-Keynesian,” see the Club of Rome and Custers (2010).

as a forum through which corporate elites can reach consensus of these ideas and start to implement standardized practices (Domhoff, 2014; as cited in Sapinski, 2015). CEPGs may be in a position to serve similar purposes for their corporate benefactors.

Through a composite measure of network centrality, Sapinski (2015) evaluated “the potential of the diffusion of climate capitalist ideas and practices among the most important corporations of the global political-economy” (p. 273). This measure was based on SNA metrics of degree (number of ties connecting one node to another), closeness (each node’s sum number of intermediaries that connected it to every other node), and betweenness (the extent to which each node mediates relations between other nodes).

Among the ten CEPGs considered, the World Business Council for Sustainable Development (WBCSD) is clearly the best connected within the G500: “among its 69 directors, 42 head G500 corporations” (Sapinski, 2015, p. 273). The Global Compact, the International Emissions Trading Association (IETA), and the Club of Rome also generate high ranks of centrality (i.e., among the top 35 nodes) within the G500 network.

Only 69 of the G500 are represented on CEPG boards. However, 16 of the 31 most central corporations within the network (51.6%) are represented on CEPG boards. Many of those most able to diffuse information in this network have a presence in CEPG organizations. Even when only G500 corporations measured (i.e., exclusion of CEPG), those corporations with members on CEPG boards had significantly higher composite measures of centrality than those who did not ($t^b(69, 431) = 32.608, p < .000, \eta^2 = 0.06$). Thus, Sapinski (2015) concludes that “these CEPGs are well positioned to play a crucial role in drawing the largest corporations into an eventual climate capitalist coalition” (p. 273).

Sapinski (2015) also analyzed the personnel and board members who he describes as the inner circle of climate capitalism: “those corporate directors who also sit on one or more CEPG boards, i.e., the individuals who create the actual network between policy groups and corporations” (p. 273). Nineteen members were G500 directors, and eleven carried interlocks between G500 corporations. Sapinski (2015) concluded that the climate capitalist inner circle was small (544 total interlockers were observed in the whole network), and therefore fragile. However, the circle included some very well positioned top capitalists, with direct access to 244 of the interlockers: “nearly half of the most connected section of the global capitalist elite is within direct reach of climate capitalist inner circle members” (p. 274).

Interestingly, many of these top CEPG capitalists were still very much connected to the fossil fuel industry. For example, Anne Lauvergeon, the most connected to the G500 out of the CEPG members, is director of the oil major Total, the CEO of a nuclear powerplant construction company (Areva), and a director of GDF-Suez, a natural gas conglomerate. Charles Holliday, the 2nd most connected in the G500, is the director of the oil major Shell.

Capitalist climate influence is fragile, but poised to spread among top capitalists (Sapinski, 2015). However, this spread might be facilitated by the lack of difference in economic ideology for addressing social problems. How much more effect will the climate capitalists have compared to the indifferent leaders of industry, or even the “carboniferous capitalist” regime? Sapinski (2015) cites multiple authors who shed doubt on the market mechanisms presently implemented (see Lohman, 2006; 2008). Further, if these ideas become ubiquitous in the media, those concerned about climate change may fall prey to a false sense of security, elite and technocratic sufficiency, as well as a heightened sense of alienation and personal inefficacy.

Fear of the phoenix

Collective and civic action on climate change is required, not only to sufficiently address the problem, but further to mitigate and adapt to the problem in a just and humane way. Cognitive and social barriers to such behavior, as well as narratives that deter and sometimes outright dismiss this attitude, are often reinforced by the media and are currently very strong. However, they may even become stronger.

The current denial networks prominent in the media are well supported, but also isolated. If advocates of climate capitalism can claim they were the ones who usurped the place of the fossil fuel industry, they may promote an unprecedented appeal to the efficacy of corporate social responsibility. This would be a complete charade, especially because some of the most central climate capitalists maintain very strong leadership positions in fossil fuel companies (e.g., Anne Lauvergeon, Charles Holliday). However, this may be an anticipated narrative for which preparation is required.

If the carboniferous capitalist regime burns-up, a regime just as fixated on capital accumulation—or indeed, even more so through the usurpation of corporate social responsibility—could rise from the ashes. Like the mythical phoenix, rising from the ashes of its predecessor, core components of the carboniferous capitalist regime might renew themselves in

the form of corporate climate elite, who tout themselves as saviors of the planet and ‘our’ way of life. The fundamental societal structures that contributed to this planetary crisis may very well resurface with new vigor among those promoting technocratic panacea.

In such an event, our species will likely experience a planetary and political climate that predisposes and incentivizes inhumane treatment of one another: Also, the opportunity for civic participation may be significantly attenuated. This prospect underscores the necessity of civic efficacy as a fundamental ethic for our continued engagement with climate change.

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