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Sources and Amplifiers of Climate Change Denial

Riley E. Dunlap and Robert J. Brulle

Introduction

James Hansen's dramatic 1988 Senate testimony that human-caused global warming had already begun put the issue on the US national agenda (McCright & Dunlap, 2000). Yet, the US has still not enacted effective carbon reduction policies due to intense opposition from industry Political Action Committees (PACs), corporate lobbying and other tactics (Ard et al., 2017; Brulle, 2018; Brulle & Aronczyk, 2019). One crucial strategy has been to cast doubt on the seriousness of human-caused climate change, first by promoting supposed 'uncertainty' about its existence and seriousness (Oreskes & Conway, 2010), and then by attacking climate science and more recently the integrity of climate scientists (Boussalis & Coan, 2016; Powell, 2011). This denial campaign has created widespread scepticism and outright denial among the American public and policy-makers that clearly hinders effective action.

The campaign to sow uncertainty about climate change was facilitated by decades of promotion of free-market (or neoliberal) ideology and outright attacks on government (Klein, 2014; Oreskes & Conway, 2010), and more recently by assaults on institutions and experts of all types--especially government officials, scientists, educators, and the mainstream media (Nichols, 2017). The consequence is that anti-intellectualism (long a feature of American life) has become widespread (Jacoby, 2008), creating a major decline in trust in government and many other institutions (Brennan, 2019; Jones, 2018). This has helped generate a 'post-truth society' (D'Ancona, 2017) highly receptive to various sources of misinformation and 'alternative facts,' such as 'climate change has no scientific basis'.

This chapter provides an overview of the key sources and amplifiers of climate change denial in the US, which constitute a large ‘ecosystem’ of actors that has evolved over the past three decades--new ones emerging as needed and marginal ones fading away (Brulle & Aronczyk, 2019). These include fossil fuels and other major corporations and their trade associations, conservative philanthropists and their foundations, conservative think tanks, public relations firms, various front groups and coalitions, ‘astroturf’ groups designed for short-term campaigns, a small number of contrarian scientists, a vast conservative ‘echo chamber’ (consisting of conservative TV and radio outlets and a few newspapers, denier bloggers and denial advocates on social media) and nearly the entire Republican Party.

We briefly highlight the above actors’ roles and interconnections in what is often called the ‘denial machine’ (Begley, 2007), constituting a ‘climate change countermovement’ (CCCM) that opposes the scientists, policy-makers, and activists promoting concern about climate change and the need to reduce carbon emissions (Brulle & Aronczyk, 2019; Dunlap & McCright, 2015). Its primary strategy is the creation and dissemination of misinformation regarding climate science and climate change more generally (Cook, Chapter X; Oreskes & Conway, 2010), an effort facilitated to some degree by the inherent complexity of climate science (Dunlap & McCright 2015; Gallant & Lewis, Chapter X). While the CCCM has spread internationally, it originated in the US and thus we will focus primarily on American actors and amplifiers of denial.

Key Actors and Amplifiers

Broadly speaking, these actors are motivated by two core concerns: economic and ideological, or profit through unfettered economic growth and staunch commitment to a neoliberal, free-market ideology that abhors governmental regulations. The two are strongly interconnected, as corporate leaders widely embrace free-market ideology and most ideologically-driven actors depend (directly or indirectly) on the corporate world for financial support (Brulle, 2014; Dunlap & McCright, 2011; Farrell, 2016).

Nonetheless, it is helpful to classify key actors/amplifiers into one or the other based on their apparent *primary* source of motivation, beginning with economic.

Strong Economic Motivation

Corporate World

Corporations and private companies depend on economic growth and attendant profits to survive, and from the outset they have been the key driver of climate change, beginning with the fossil fuels industry. By the early 1990s, ExxonMobil and Peabody Coal were funding contrarian scientists and mounting public relations (PR) efforts with front groups (for example, the Information Council on Environment) to promote uncertainty—despite evidence that Exxon’s own scientists were aware of the dangers much earlier (Cook et al., 2019). They were joined by the Western Fuels Association (which funded the Greening Earth Society to produce and distribute a video touting the benefits of CO₂), National Coal Association, and the Edison Electric Institute in campaigns to promote uncertainty (Hoggan & Littlemore, 2009). The major oil and gas trade association, the American Petroleum Institute, was also an early and crucial actor, apparent from its 1998 ‘Global Climate Science Communication Action Plan’ designed to promote widespread doubt among the media and public that was leaked and published by the *New York Times* (Beder, 1999; Hoggan & Littlemore, 2009). Of all these corporations and trade associations, ExxonMobil stands out in terms of its generous and long-term support for climate change denial (Farrell, 2016; Mooney, 2005; Union of Concerned Scientists, 2007).

Other industrial sectors were quick to join the effort to undermine climate science, especially those related to or dependent on fossil fuels. Besides individual corporations like Dow Chemical, Dupont, Ford, and General Motors, highly influential business and trade associations representing these sectors became active. The US Chamber of Commerce and National Association of Manufacturers were particularly influential, and were joined by many other trade associations including the American Farm Bureau Federation, American Iron and Steel Institute, Association of American Railroads, Chemical Manufacturers Association, Motor Vehicle Manufacturers, and National Mining Association. This widespread corporate support for misinforming the public about the threat posed by climate change has provided a foundation for its overall opposition to carbon reduction policies involving PR campaigns,

lobbying, political contributions and more (Ard et al., 2017; Brulle, 2018; Pooley, 2010; Union of Concerned Scientists, 2012).

Front Groups and Coalitions

Corporations have long sought to hide their anti-environmental actions from media and the public, and a crucial strategy is to form front groups to do their ‘dirty work’. We have already noted the Information Council on Environment and Greening Earth Society established early on by the coal industry, but far more influential, longer-lasting and international in scope was the Global Climate Coalition or GCC (Brulle, 2019; Hoggan & Littlemore, 2009). Established in 1989 by the National Association of Manufacturers it became an independent entity shortly after, with strong support from Exxon Mobil and the American Petroleum Institute. Numerous major corporations from industries such as fossil fuels (British Petroleum, Chevron, Texaco), auto (DaimlerChrysler, Ford, General Motors) and chemical (Dupont) joined, as well as powerful business and trade association (National Association of Manufacturers, US Chamber of Commerce, American Petroleum Institute, Chemical Manufacturers Association, and National Coal Association) (Dunlap & McCright, 2011). The GCC sponsored many climate misinformation efforts to generate opposition to the US committing to the 1997 Kyoto Protocol and to spread doubt about climate change in general (Pooley, 2010).

Corporations such as British Petroleum began to drop out in the late 1990s in response to mounting scientific evidence of climate change and fear of negative publicity, and by 2002 the GCC was disbanded—its members confident that the George W. Bush Administration would not sign the Kyoto Protocol (Powell, 2011). Throughout its existence, the GCC did far more than spread misinformation, such as lobbying against carbon reduction efforts. In fact, it was one of the earliest and most influential ‘coalitions’ that have played critical roles in the CCCM by combining the power of numerous corporations and trade associations in unified campaigns to oppose climate change mitigation proposals and legislation and—via well-funded PR campaigns—to minimize the significance of global warming,

emphasize the economic harm of mitigation, and engage in intensive lobbying in the political arena. A recent study revealing the nature of these coalitions finds that of the ten formed after the GCC, the Alliance for Energy & Economic Growth, the Coalition for Vehicle Choice, and the Coalition for Affordable and Reliability have been most influential (Brulle, 2019).

Public Relations Firms

Between the 1970s and the 1990s, corporate PR agents and firms built advocacy structures to anticipate and manage public policy issues in response to the growth of the environmental movement (Beder, 1998; Brulle & Aronczyk, 2019). With the rise in concern over global climate change, PR firms partnered with fossil fuel interests to develop comprehensive campaigns to promote a positive public image for these interests and to oppose climate change mitigation (Brulle et al., 2020). Notably, the leading 'environmental' PR firm, E.B. Harrison, was a key actor in the development of communications strategies for the Global Climate Coalition, the Coalition for Vehicle Choice, and the American Coalition for Clean Coal Electricity, three of the several coalitions noted above that were formed to combat climate change mitigation efforts (Brulle, 2019). These advocacy campaigns, designed and directed by PR firms, work in an integrated and comprehensive manner to actively shape public policy decisions in ways favorable to overall corporate interests (Barley, 2010). Their techniques include emulation of grassroots advocacy in the form of front groups, intimidating climate scientists, using SLAPP lawsuits to prevent citizen participation in policy-making arenas (Canan & Pring, 1988), engaging third party spokespersons, developing and promulgating sophisticated greenwashing PR campaigns, and using extensive media outreach efforts to promote misinformation about climate science from well-known climate change contrarians (Brulle & Aronczyk, 2019; Manheim, 2011).

Astroturf Groups and Campaigns

Astroturf groups are created by other actors (especially corporations and front groups in the CCCM) for short-term campaigns, designed with guidance from PR firms, to appear as popular

'grassroots' protests by workers and citizens opposed to specific climate change mitigation policies and proposals while hiding their corporate sponsors (Beder, 1998). They were especially popular right after Obama was elected President as a means of generating highly visible opposition to Congressional legislation and his climate agenda in general (Pooley, 2010). Fossil fuels corporations and major front groups like Americans for Prosperity and Freedom Works (both funded by the Koch Brothers) sponsored astroturf campaigns such as the 2008 'Hot Air Tours' and 2009 'Energy Citizens' rallies, generating enormous publicity via Fox News and other conservative media that helped create the appearance of widespread opposition to climate change mitigation efforts (Dunlap & McCright, 2015). This in turn helped strengthen resistance among Congressional Republicans.

No doubt the most successful astroturf campaign thus far was the formation and development of the 'Tea Party', a seemingly grassroots effort that the Koch Brothers and other industrial giants played an essential role in creating, supporting, and nurturing (Meagher, 2012; Nesbit, 2016). The Koch-funded Americans for Prosperity and Freedom Works in particular managed to build on right-wing populist rage stimulated by Obama's election to help generate a strong political movement and quasi-political party. The Tea Party rapidly pushed the Republican Party to embrace much of its far-right, anti-governmental agenda (Skocpol & Williamson, 2012), contributing heavily to unprecedented polarization and consequent dysfunction in the federal government and politics in general (Mann & Ornstein, 2016; Nesbit, 2016).

Strong Ideological Motivation

Conservative Philanthropists and Foundations

Political conservatives and business interests (strongly overlapping) became fearful that the progressive changes of the Sixties (from government programs to social and cultural changes) were threatening the America they knew and treasured, and helped revive and grow a strong conservative movement to oppose these changes (Meagher, 2012). Crucial to this effort was the proliferation of

philanthropic foundations that were used to fund a vast array of conservative organizations (especially think tanks), front groups, magazines, spokespersons, etc. via donations from their tax-exempt funds (Covington, 1997). Set up by wealthy conservative individuals and families (the Kochs and Scaifes for example) as well as corporations (ExxonMobil for example), these foundations have been very strategic with their funding, aiming to achieve results over differing time horizons (Meagher, 2012). They support long-term efforts such as funding think tanks, promoting conservatism in academia and using PR campaigns to promote free-market ideology and a positive image of corporations; medium-term efforts such as translating ‘academic’ ideas like tax cuts will pay for themselves by stimulating economic growth into policy proposals; and short-term efforts such as funding opposition to proposed legislation, from lobbying against it to organizing astroturf groups that give the appearance of widespread citizen opposition (Brulle & Aronczyk, 2019, Mayer, 2016).

Funding from conservative and corporate foundations was vital in building a cohesive and extremely powerful conservative movement that has had tremendous influence on American politics and society (Micklethwait & Woolridge, 2004; Schulman & Zelizer, 2008). The movement paved the way for the Reagan Administration, the resurgence of Republican control of Congress, and the rise of free-market neoliberalism as a hegemonic ideology (Mayer, 2016; Meagher, 2012). Of most relevance here was the success of conservative and corporate philanthropy in building the CCCM (Brulle, 2014; Farrell, 2019).

Conservative Think Tanks

Successful social movements need a strong organizational base, and conservative and corporate philanthropy began building one in the Seventies and Eighties by establishing numerous think tanks, which function as social movement organizations (Stefanic & Delgado, 1996). The network of conservative think tanks (CTTs) has had an enormous impact on the US, developing, advocating, and helping implement a wide range of neoliberal policies that have fundamentally changed American society (Mayer, 2016). A key strategy has been fomenting and nurturing counter-movements to oppose

progressive causes and movements (Stefanic & Delgado, 1996), including environmentalism (Jacques et al., 2008). When global environmental problems achieved prominence via the 1992 Rio ‘Earth Summit,’ anti-environmentalism became a major conservative concern and a full-fledged national and international counter-movement was launched in contrast to earlier, regionally based anti-environmental efforts (Brulle & Aronczyk, 2019). Climate change quickly became a major focus because of the immense regulatory implications entailed in ameliorating it, and CTTs became a central element in the CCCM with ties to virtually all other actors (McCright & Dunlap, 2003; 2010). Not surprisingly, the most influential CTTs have the strongest ties to conservative foundation and corporate funding (Brulle, 2014; Farrell, 2016).

CTTs have long been the leading creators and a major amplifier of climate change denial (Mooney, 2005), drawing on their success in being treated as an alternative academia with their spokespersons widely treated as objective and legitimate ‘experts’. These experts (who increasingly include leading contrarian scientists) are provided ample resources to produce and disseminate a flood of climate change misinformation via books, policy briefs, op-eds, and so forth, and frequent invitations to appear on TV and radio, give lectures, and testify in Congress (Dunlap & Jacques, 2013; McCright & Dunlap, 2003)—turning them into a leading source of climate change denial. In fact, CTT’s commitment to denying the seriousness of climate change is so strong that their spokespersons create new forms of misinformation to oppose market-based ameliorative policies based on the very neoliberal ideology they claim to support (Bohr, 2017).

While the majority of CTTs are based in the US they are also prominent in the UK, Australia, and Canada (Dunlap & Jacques, 2013). With support from international CTT networks such as the Atlas Economic Research Foundation, Economic Research Network, and the Civil Society Coalition on Climate Change, climate change denial has spread to numerous nations via small neoliberal think tanks or front groups (Dunlap & McCright, 2011; Greenpeace, 2013). In fact, McKie (2019) analyzed the discourse of 459 CCCM organizations, including 231 think tanks and research institutes, active sometime

between 1957 and 2016 and spread across 53 nations. They were most prevalent in the US by far, with several in the U.K, Canada and Australia (McKie, 2018).

Contrarian Scientists

Industry and then other elements of the CCCM drew upon decades of corporate experience in defending hazardous products (Michaels, 2008; Oreskes & Conway, 2010) by enlisting the aid of a small number of contrarian scientists to promote uncertainty over climate change, and eventually attack the entire field of climate science and climate scientists (Powell, 2011). While a few have expertise in climate change, many do not, especially as the pool has expanded over time. Yet, simply having a PhD (in fields such as physics, geography, soil science, and economics) gives them credibility in the eyes of the media, many policy makers and much of the public—especially when promoted by CTTs, conservative media and Republican politicians. The journalistic norm of ‘balanced reporting’ has given contrarians disproportionate representation in mainstream media (Boykoff, 2011) and they and their sponsors manage to create not just widespread uncertainty but the false image of climate science as plagued by ‘controversy’ and therefore totally unreliable (Ceccarelli, 2011; Dunlap & McCright, 2015).

Contrarians have not only been major creators of misinformation, but have amplified and ‘legitimized’ misinformation from other key actors such as industry, CTTs, and front groups. In turn, CTTs and conservative media have allowed them to reach far larger audiences than possible on their own (Gelbspan, 1997; Powell, 2011), as noted above. Contrarians are thus a central cog in the CCCM, linked to virtually all other key actors.

Some contrarians like Patrick Michaels, Fred Singer, and Willie Soon have received funding directly from corporations and trade associations (Gelbspan, 1997; Hoggan & Littlemore, 2009; Mooney, 2005), giving them economic motives to promote climate change denial. However, contrarians’ nearly universal adherence to free-market ideology, especially antipathy and fear regarding potential governmental regulations to reduce carbon emissions (Gelbspan, 1997; Oreskes & Conway, 2010), and

frequent links to CTTs, leads us to categorize them as ideologically motivated. Other non-economic factors motivating some include strong Christian beliefs (Roy Spencer, for example), an ingrained tendency to oppose mainstream views (Richard Lindzen and Freeman Dyson, for example), and love of celebrity status after lackluster academic careers (Tim Ball, for example).

Conservative Media

Talk radio emerged in the US in the Eighties under the Reagan Administration when the Federal Communications Commission abandoned the ‘fairness doctrine’ requiring some degree of balance in discussion of controversial issues, and conservatives seized upon the opportunity (Meagher, 2012). Right-wing radio commentators led by Rush Limbaugh quickly gained large audiences and created a conservative echo chamber (Jamieson & Cappella, 2008). This effort took a giant step forward in 1996 when conservative Australian media baron Rupert Murdoch launched Fox News, proclaiming it would offer a ‘fair and balanced’ alternative to the liberal ‘mainstream’ networks (Amann & Breuer, 2007). Fox News rapidly became the most widely viewed cable TV network in the US, and offered a huge megaphone for conservative ideology and politicians (Brock & Rabin-Havt, 2012)—and most recently the major source of pro-Trump propaganda. Supplemented by the *New York Post*, *Washington Times*, and other conservative newspapers and widely distributed conservative columnists, talk radio and Fox News provide the core of the ‘conservative echo chamber’ (Jamieson & Cappella, 2008).

This echo chamber, which many conservatives seldom if ever leave, has become the largest amplifier of climate change denial, with Limbaugh and Fox News leading the charge and other components such as conservative newspapers (Bohr, 2020) and widely circulated columnists (Elsasser & Dunlap, 2103) following suit. It led the attacks on Al Gore and *An Inconvenient Truth* and a bevy of climate scientists, promoted the ‘hockey stick’ and ‘climategate’ into major controversies, and more recently has cheered Trump’s withdrawal from the Paris Accord and his other denial-based policy initiatives. A key strategy has been to give contrarian scientists, CTT spokespersons and politicians endorsing denial a bully pulpit for generating the notion that climate change is a scientifically

controversial issue (Ceccarelli, 2011; Dunlap & McCright, 2015), despite the strong scientific consensus on human-caused global warming (Cook et al., 2016). The result is that Fox viewers (which likely includes most Republican politicians) have been found to have significantly higher levels of climate change scepticism than viewers of other TV news outlets (Feldman et al., 2012; Bolin & Hamilton, 2018).

Denial Bloggers and Advocates on Social Media

The growth of the blogosphere, especially after 2000, opened new opportunities to create and disseminate climate change misinformation, and numerous ‘sceptic’ (as they call themselves) blogs began to appear. While a few are run by contrarian scientists such as Judy Curry and Roy Spencer, most are not, including nearly all of the prominent ones. However, the bloggers and their followers often label themselves ‘citizen scientists’, misusing a term applied to lay people serving as valued data collectors for scientific research on, for example, bird populations and migration patterns (Silvertown, 2009). In contrast, sceptic bloggers and their followers see themselves as legitimate critics ‘auditing’ climate science, exposing flaws in its methods and findings, rather than contributing to it (Dunlap & McCright, 2015).

Sceptic blogs rose in prominence in 2009 due their role in disseminating stolen and distorted emails among leading climate scientists (from a server based at a climate center at the University of East Anglia in the UK), and then giving them endless publicity—quickly picked up and amplified by the conservative ‘echo chamber’ (Bohr, 2020; Elsasser & Dunlap, 2013)—to create the ‘climategate’ controversy. It had a noticeable impact on Americans’ trust in climate science (Leiserowitz & Maibach, 2013) and gave bloggers and Republican politicians an excuse to harass climate scientists and escalate their attacks on climate science (Bradley, 2011).

Sharman (2014) located 171 sceptic blogs active in March and April of 2012, spread across 13 nations, with the largest number in the US, and significant numbers in Australia, UK, Canada, and New Zealand—another indication of the international diffusion of denial. She argues that the most prominent

ones employ ‘science’ in their arguments and framing, although they typically recycle disproven claims or promote new ones likely to have the same fate (Benestad et al., 2016).

Sceptic blogs are supplemented by a variety of social media and online outlets in the diffusion of climate change denial. For example, active deniers and sceptical laypersons make good use of Twitter (Jacques & Knox, 2016), Facebook (Bloomfield & Tillery, 2019), YouTube (Allgaier, 2019) and user comment sections of online news services (Walter et al., 2018) to disseminate climate change misinformation to large segments of the public—often drawing upon material from contrarian scientists. In fact, a recent study finds that leading contrarians and a comparison group of climate scientists with far stronger publication records not only have comparable visibility in mainstream media, but that the contrarians have far more visibility in the wide range of new media (Petersen et al., 2019). Clearly, blogs and social media are an important part of the CCCM, especially as amplifiers.

Republican Party

In the early 1970s, environmental protection was commonly portrayed as a bipartisan issue, even though Republican politicians’ support was significantly lower than was true of their Democratic counterparts (Dunlap & Allen, 1976). The Reagan Era saw the partisan gap grow larger, as the Reagan Administration’s embrace of free-market, anti-regulatory ideology led to unprecedented efforts to weaken federal environmental agencies and regulations (Layzer 2012; Turner & Isenberg 2018). This trend escalated in the Nineties as the Republican Party moved farther to the right, leading to a chasm between the parties in terms of Congressional voting and increased partisan polarization in support for environmental protection among the US public (McCright et al., 2014). This growing polarization is primarily due to the increasing radicalism of the Republican Party (Mann & Ornstein, 2016) stemming from right-wing funders and pressure groups and the Tea Party (Nesbit, 2016; Skocpol & Williamson, 2012). Drawing on a detailed analysis of party manifestos/platforms reported by the Manifesto Project, an analyst recently noted that, ‘The Republican Party leans much farther right than most traditional

conservative parties in Western Europe and Canada,’ while the Democratic Party ‘is positioned closer to mainstream liberal parties’ in those nations (Chinoy, 2019).

This polarization has peaked over climate change, as due to Republicans’ long-term embrace of free-market, anti-government ideology, any effort to take ameliorative action such as reducing carbon emissions evokes opposition. Starting with George H. W. Bush (Turner & Isenberg, 2018), worsening with George W. Bush (McCright & Dunlap, 2010), and reaching unprecedented and previously unimaginable heights under Trump (De Pryck & Gemenne, 2017), Republican Administrations have worked to minimize the risks posed by climate change, block amelioration efforts, cut climate science programs and funding, and hinder agency oversight by installing deniers in important posts (Layzer, 2012; Turner & Isenberg, 2018).

These Administrative efforts are strongly complemented by Congressional Republicans, currently a Republican-controlled Senate that refuses to let any measures designed to cut carbon emissions come to a vote, and a long history of both House and Senate efforts to harass climate scientists, stock hearings with contrarian scientists and non-scientific deniers, and amplify denial via personal websites, speeches and media interviews (Bradley, 2011; Dunlap & McCright, 2015). Such actions, combined with Administrative efforts, provide elite cues to party activists and rank-and-file Republicans that reinforce and strengthen their skepticism toward climate change (Carmichael & Brulle, 2017), contributing to intense partisan polarization among the US public (Dunlap et al., 2016; Guber, 2017; Leiserowitz et al., 2019).

While the US leads the world in partisan polarization over climate change, thanks to its international influence and the diffusion of denial via think tanks, leading contrarians and sceptic bloggers, several populist and right-wing parties around the world now espouse denial (Forchtner, 2019). This is likely increasing an ideological/partisan divide already visible among citizens in several Western European nations in 2008 (McCright et al., 2016)—yet another sign of the international diffusion of climate change denial.

Summary and Conclusion

We have shown that a vast, complex but highly interconnected set of actors function as a CCCM that is the source and amplifier of climate change and science denial. Consisting of many parts, some—corporations, conservative foundations, and think tanks—more central than others, the CCCM has been a powerful force in obstructing climate change amelioration in the US and worldwide, with misinformation campaigns a central strategy. What can be done to counteract its efforts?

Continuing to mount a strong ‘climate change movement’ consisting of scientists, policy-makers, and citizen activists (especially youth) is essential for keeping climate change on the national agenda. Likewise, raising the salience of climate change as a voting issue and mobilizing citizens most likely to be supportive of candidates who favor amelioration policies, have never been more crucial. Removing politicians opposed to any carbon reduction effort and replacing them with politicians who are sympathetic, and who will also support measures to create and strengthen transparency in political contributions and donations to CTTS and other CCCM organizations, should be a top priority in our view. Legal suits against energy corporations that have promoted disinformation are also useful (Farrell et al., 2019).

The ever-growing body of research on the sources of climate change misinformation reviewed in this chapter supports the above strategies and a fourth, related one that may prove the most powerful strategy if employed effectively. Policy-makers such as Senator Sheldon Whitehouse and media figures like liberal TV commentators can draw upon this research to ‘pull back the curtain’ on what Whitehouse calls the ‘Web of Denial’, as he has increasingly done in recent years (Whitehouse, 2016), at times enlisting the aid of several fellow Democrats (Reid et al., 2016). These efforts amount to a societal-level extension of what social-psychologists term ‘inoculation theory’, an approach that seeks to blunt climate change misinformation by informing people of the strong scientific consensus over climate science and the motivations and supporters of those challenging it (Farrell et al., 2019; van der Linden et al., 2017; Vraga

& van der Linden, Chapter X). As the public learns more about the denial machine, it should help blunt the effectiveness of its misinformation efforts.

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