FRAMING YOUTH AND SOCIO-CULTURAL ISSUES

IN MEDIA AND ONLINE DISCOURSE

by

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A dissertation submitted to the

Graduate School-Camden

Rutgers, The State University of New Jersey

In partial fulfillment of the requirements

For the degree of

Doctor of Philosophy

Graduate Program in Childhood Studies

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Camden, New Jersey

January 2018

ABSTRACT OF THE DISSERTATION

Framing Youth and Socio-Cultural Issues in Media and Online Discourse

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This project explores the framing of youth and climate change: how frames of children are used to persuade adults about climate change, how frames of youth restrict youth access to climate change information and opportunities for participation, and even how children frame themselves and climate change differently than adults in their efforts to participate. Using the method of media frame analysis (or the exploration of media treatment of problems, casual interpretations, moral judgments, and solutions), this research examines multiple communication mediums through which children are either used or targeted for climate change messaging (social marketing, climate change curriculum and fiction, news media coverage, and online public discourse). Based on such exploration, this project establishes the following: 1) Adult-centered climate change communication commonly uses frames of children and youth as innocent, naive, and vulnerable to promote particular stances on climate action. 2) These frames are also employed to either restrict or encourage youth climate education, as well as youth participation in climate change discourse and climate action efforts. 3) In order to participate in climate change discourse and action, youth activists must simultaneously embrace and challenge these adult frames of youth. Ultimately, this research concludes that common adult frames of youth may unfairly restrict kids from both participating in discussions and decisions about climate change, or

readily accessing information necessary to their understanding of an issue that could impact

them greatly. Furthermore, such framing perpetuates stereotypes and policies that may limit po-

tentially valuable and effective problem-solving partnerships between youth and adults.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

> My name is Haven. Thank you for taking my question. I am grateful for the military just like I know you are. Transitioning to civilian life can be scary for many. One reason is that the military service skills aren't always what is needed for the civilian workplace. You don't want to pursue renewable energy, but please reconsider. Solar and wind jobs are a great fit for new veterans. The US Department of Energy even has a program called Solar-Ready Vets to help them transition into solar careers...and the wind turbine service technician is going to be the fastest growing job category in the US...Solar jobs outnumber coal mining jobs, and coal use is down, way down, even from 2006. Why do you continue to support creating coal mining jobs when it's a career that endangers its workers and makes them sick? Renewable energy jobs keeps people above ground breathing fresh air and helps veterans. (Caughran)

In this passage, a concerned citizen (Haven) expressed her concerns with her congressman at a town hall meeting.[1] The filmed statement received a great deal of media attention, including 45,000 views on YouTube, and coverage in multiple local and national news outlets. So why did a seemingly commonplace statement by a concerned citizen receive so much attention? A clue may be found in the last line of Haven's question to Congressman Lamborn (R-CO): "Also, I'd like to invite you to my science class for a student presentation on climate change" (Caughran).[2]

Yes, Haven is a child (or, as a Mother Jones journalist declared her, "A Badass Little Girl") (Leber). And—as much of this project will demonstrate—adult perceptions of children can have a substantial impact on media representations of both youth and the climate debate, which I argue could have negative implications for both children and society. Haven's status as a child likely explains a lot of the public's interest in her statement, since that status carries many stereotypes. Adults often assume both the innocence and ignorance of children, and are thus both fascinated and wary when they see children exhibit a high level of awareness and competence regarding

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[1] This town hall meeting took place on April 12, 2017, and the statement was directed toward Republican Congressman, Doug Lamborn.

[2] Though Haven's age was not identified, it is clear from the video that she is unlikely to be older than twelve. View the entire video at the following web address: www.youtube.com/watch (Caughran).

social issues. Haven's display of calm restraint is also striking, especially because her statement is followed by the outburst of a woman in the same audience, who repeatedly shouts at the congressman for being "a liar." Adults often expect children to be subject to such outbursts, which must be controlled by adults (who have learned to exercise restraint). Thus, this juxtaposition may also tamper with the expectations of many viewers.

Through her participation, Haven joins the growing body of youth who engage in a discourse that is largely reserved for adults (even as children are seen to be the recipients of contemporary policy). Such participation is intriguing and/or unsettling for many adults, and raises several questions. Does Haven's participation demonstrate youth competence about social issues, and their capacity for problem-solving partnerships with adults? Does it suggest that perhaps, adults don't need to be quite so scared of sharing information about the big, scary world with this nation's children? Or does it suggest that children are being coached by adults and used as pawns for a political agenda?

Such questions only lead to further questions: what should children be told about climate change, if anything? Should adults protect them from the knowledge of threatening social issues or prepare them for the potential changes to come? These queries are largely based on the ways that adults think about—or mentally frame—children and the issue of climate change. Within her statement, Haven defies perceptions of children as naive, ignorant, and immature, by skillfully framing climate change for her audience. She attempts to present her message about renewable energy in a way that caters to the political perspectives of her Republican congressman. By focusing on the aspects of renewable energy that benefit the congressman—like caring for the Veterans in his voter base—Haven maximizes the potential that her message will be heard rather than ignored. Though she does question the congressman's previous decisions, she

does not focus heavily on his voting record or other negative aspects of the issue, which may help to minimize any defensiveness on the part of her listener. This approach—highlighting particular bits of information and minimizing others in order to present an issue in a particular way—is called message framing, and it is used not only in all forms of communication, but also in all forms of thought (Entman "Fractured Paradigm").

This project will focus on the complex network of frames used to discuss both youth and climate change—how frames of children are used to persuade adults about climate change, how frames of children restrict youth access to climate change information and opportunities for participation, and even how children frame themselves and climate change differently than adults in their efforts to participate. Through the examination of four mediums through which children are either used or targeted for climate change messaging—social marketing, climate change curriculum, climate change fiction, and the US court system—I hope to achieve the following goals:

1. Raise awareness of the common adult frames about children and childhood that are often taken for granted as truths.

2. Illustrate some ways that these frames are evoked to persuade adults into taking a particular stance on climate change.

3. Demonstrate that these often inaccurate frames may unfairly restrict kids from participating in discussions and decisions about climate change, or readily accessing information necessary to their understanding of an issue that could impact them greatly.

4. Highlight the ways that youth activists navigate participation in climate change discourse and action by both embracing and challenging adults' frames of youth.

THEORETICAL FRAMEWORK: AN INTRODUCTION TO FRAMING

The exploration of frames within climate change-related media requires a grounding in the basic method of frame analysis and associated terms. Thus, historical context and a foundational introduction to frames, framing components, and frame analysis approaches is laid out in the following section, after which frames of children and climate change will also be discussed.

Framing in Historical Context

Frame analysis has been increasingly used as a method of analyzing thought, social interaction, and communication since the 1970s, though there is evidence of the concept in much earlier scholarship. For instance, in 1932, Bartlett explained the psychological concept of a schema by asserting that "the past operates as an organized mass rather than as a group of elements each of which retains its specific character" (197). When people encounter new experiences, Bartlett suggests that people's minds take mental shortcuts by filling in likely details.

Anthropologist Gregory Bateson is largely credited with coining the term frame in 1955 as a means of categorizing behavior in context (Bateson "The Message" 149; Gray 13; Tannen 15; Goffman 5). In his 1972 book, Steps to an Ecology of Mind, Bateson further developed his concept of frames by contending that "human verbal communication can operate and always does operate at many contrasting levels" (177). Humans, Bateson argued, use of a range of implicit and explicit cues to indicate how others should interpret their behaviors, though any occurrence can be interpreted differently by different people (178).[3]

In 1974, sociologist Irving Goffman expanded Bateson's framing concept into a method for analyzing social interactions. Essentially, Goffman devised a theory of cognition, suggesting that frames are the means by which people organize and make meaning of experiences. Goffman theorized that each individual interprets experiences subjectively, by attempting to extract the salient information from a situation, and fit that information within his or her own network of pre-existing mental frameworks.[4] This meaning-making process is assisted by the exchange of

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[3] "We all too often respond automatically to newspaper headlines as though these stimuli were direct object-indications of events in our environment instead of signals concocted and transmitted by creatures as complexly motivated as ourselves" (178).

[4] Cognitive structures are built from previous knowledge and experience, and serve to guide individual perceptions of reality.

keys (or cues) that tell participants how to interpret an interaction[5] (Goffman 43).[6] Goffman's work

on frames is greatly concerned with individual attempts at fabrication, or "the intentional effort

of one or more individuals to manage activity so that a party of one or more others will be in-

duced to have a false belief" of what has occurred in the situation (83). Goffman is also interest-

ed in the individual use of framing for impression management, or an individual's attempts to

construct an identity (which may vary depending on context), while also interpreting the identi-

ties of others. Goffman suggests that individuals attempt to bend others' perceptions of them to

their own self-concept (which is called self-verification).

Goffman has arguably become the most recognizable scholar associated with the fram-

ing concept. However, earlier conceptions of schemas and frames have been adopted and

adapted by scholars within a wide range of fields, including anthropology,[7] artificial intelligence,[8]

communications and media studies,[9] discourse analysis,[10] linguistics,[11] political science and poli-

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[5] This can include up-keying of a signal to another participant that an utterance or action should not be taken seriously, and down-keying, which signals the opposite (Goffman 43). For instance, when attending a murder mystery play at the theater, there are many elements within the framework of the theater experience (the curtain, sitting within an audience, etc.) that signal attendees that any murder that might take place is not a real murder (but merely an interaction symboliz-ing murder for the purpose of entertainment) and thus, there is no need for alarm.

[6] According to Goffman, interactions contain multiple tracks, including salient information and distractions. These tracks can include the primary story line (or occurrences and utterances of primary concern in a particular context), directional signals (like the clearing of the throat to get attention), concealed information (such as secret looks between participants) and disattended or insignificant information (a cough, for instance) (202-14).

[7] See Bateson (1955; 1972).

[8] See Minksy (1975).

[9] See Entman (1993).

[10] See Van Dijk (1977)

[11] See Chafe (1977), Fillmore (1975; 1982), and Tannen (1979).

cy studies,[12] psychology,[13] and sociology.[14] Each of these fields claims its own seminal works and theoretical perspectives in the study of frames, including different definitions and terminology to refer to the concept. Similar concepts have included schemas, Schank and Abelson's script,[15] Tuchman's typification,[16] Holland and Quinn's cultural model,[17] scenarios, and Lakoff's idealized cognitive model.[18]

Many of the aforementioned scholars—including Goffman—were primarily interested in social interactions, rather than communicative texts (like news media, literature, written discourse, etc.). In fact, scholars of media have suggested that Goffman's conception of frames was too embedded in social interaction to be adequate for the analysis of media, arguing that "[Goffman] is interested in the moods and gestures that 'key' a phenomenon from one frame to another, not in the institutional mechanisms that accomplish transformation" (195). In his pivotal 1993 article, "Framing, Toward Clarification of a Fractured Paradigm," Entman identified what he perceived to be overlapping, yet unstandardized conceptions of framing across disciplines. He stated that, "because of the lack of interchange among the disciplines, hypotheses thoroughly

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[12] See Schon and Rein (1994).

[13] See Bartlett (1932), Schank and Abelson (1977).

[14] See Goffman (1974).

[15] Schank and Abelson asserted that scripts were stereotyped chains of actions occurring in frequently events. Schank and Abelson illustrated this concept through the common experience of visiting a restaurant (which included expected elements, like waitresses, cashiers, food, etc.). For more, see Schank and Abelson (1977).

[16] Tuchman's concept of typification referred to socially constructed understandings based on assumptions. For more, see Tuchman (1978).

[17] Holland and Quinn define cultural models as "presupposed, taken-for-granted models of the world that are widely shared (although not necessarily to the exclusion of other alternative models) by the members of a society and that play an enormous role in their understanding of that world and their behavior in it" (qtd. in Holland and Quinn).

[18] Lakoff's idealized cognitive models refer to the structures that help people to organize knowledge (68). As an example, Lakoff suggests that humans cannot define the word Tuesday without mentally referring to conceptions of time, natural cycles, calendars, weeks, days, etc. For more, see Lakoff (1987).

discredited in one field may receive wide acceptance in another. Potential research paradigms remain fractured, with pieces here and there but no comprehensive statement to guide research" (51). Thus, Entman asserted the need to collect information from a range of fields and gather "ideas together in one location" (51). Similarly, Scheufele called for a "commonly shared theoretical model" in 1999 (103). In response to Entman, however, Paul D'Angelo, argued that the "multiparadigmatic" nature of framing studies as one of its strengths (870), suggesting a need for a variety of approaches to frame analysis.[19]

Frame Analysis as Defined in the Present Study

Although a great deal of past framing research was concerned primarily with cognition and verbal interactions, frame analysis scholars in the field of communications are typically more concerned with the frames present in static texts or discourse (that is, written or recorded communication, as well as online discourse texts, etc.). This project will focus primarily on static media texts and written online discourse. Therefore, while this research will draw upon a variety of concepts from the rich research history of frame analysis that spans multiple fields, research that pertains to frames in communications and discourse will be most immediately relevant to the current project. The following sections are meant to provide an introduction to framing concepts relevant to that focus.

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[19] In his landmark article, D'Angelo identified three framing paradigms that he took to be the "hard core" of framing research: cognitive, critical, and constructionist (873). Cognitivists are concerned primarily with cognitive or mental frames, and—if connected to the media—the effects of media frames on individuals. While both critical and constructionist paradigms "involve assumptions about power and its relationship with content and audience reception," critical framing scholars tend to see the framing process in a more linear fashion, with agenda-setting media creators and powerful elites largely establishing frames that "reinforce dominant ideology as natural and universal" (Hardin and Whiteside 314; Akhavan-Majid and Ramaprasad 133). Finally, constructionists perceive of media creators as "part of the same cultural system as the public, [thus] they rely on frames that resonate with themselves and with the media consumer" (Hardin and Whiteside 314). According to Baylor, "this view is very different from one that pictures the media as an outside entity acting on a malleable public'" (Baylor 1996; 242), since it grants citizens more agency to resist—as well as influence—media frames, especially in a time of web 2.0 and public online discourse.

People Think in Frames

Cognitive frames allow people to make sense of the world around them.[20] In fact, it is probably safe to say that humans cannot think without mentally calling up frames. Just as a good, concrete metaphor can help people to understand an abstract concept (like "time is money," so people spend their time), a cognitive frame can help people to make sense of conceptual networks. This is because every concept in an individual's consciousness—from a simple object to a complex abstraction—triggers other connected ideas that help that person to define and clarify an understanding of the concept and how to think about it.[21] For example, the word kitchen cannot be defined by the average American without calling up a variety of other concepts, like stove, oven, refrigerator, food, etc. However, these conceptions may vary by culture or individual experience. Thus, members of some cultures may associate a completely different set of concepts with their respective word for kitchen.

According to cognitive scientist George Lakoff, there are four moral principles that help people to understand what framing is and how it works. Nora Miller perhaps explains these principles best:

1. Every word evokes a frame - every word brings with it related concepts and images. If I say "cat" you immediately have at your mental fingertips a wealth of associations: paws, purring, petting, bad luck, chasing mice, etc., etc.
2. Words defined within the frame evoke the frame - the word "purr" in the sentence "Tommy purred and twitched his tail" evokes the "cat" frame and you can tell Tommy is probably a cat without my saying so.

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[20] Some scholars argue for the separation of the commonly conflated terms, cognitive schema and cognitive frame in framing research. For instance, Scheufele and Scheufele suggest that using the terms as synonyms ultimately makes the term frame obsolete. They define the cognitive schema as "a configuration of salient attributes that help us to process subsequent information" (116). These cognitive schemas do not become cognitive frames until they are mentally activated. Those cognitive frames can then be transformed into media frames by a communicator, or a reader/viewer can have his or her cognitive schemas activated into cognitive frames through an encounter with a media frame (118). However, I believe that this difference is too weak to warrant a change of terminology. Thus, in my own research, I aim to minimize confusion by referring either to cognitive frames, discourse frames, or media frames.

[21] This is called spreading activation (Shah et al. 218; Anderson).

3. Negating a frame evokes the frame - "Don't think of a cat" paradoxically requires you to think of a cat in order to "not" think of it. [Thus, you don't want to use the language or frame of the opposing side].
4. Evoking the frame reinforces the frame - because of the way the brain works, every time the "cat" circuit is activated, it becomes stronger. Even negative references to a frame reinforce the life of the frame, making it seem ever more familiar, acceptable, "real." (N. Miller 202)

People Communicate in Frames

Because it is impossible for humans to think without mentally calling up relevant frames, it is also impossible for any individual or media producer to compose a message without evoking frames (often called media frames).[22] According to frame analyst Robert M. Entman, "to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation" (52).

Whether the composer of a persuasive message is aware of this framing or not, such a message will inevitably highlight some pieces of information while minimizing or excluding other pieces, encouraging the audience to adopt particular conclusions by connecting information to culturally familiar symbols, metaphors, and accepted values. As Entman states, "…the frame determines whether most people notice and how they understand and remember a problem, as well as how they evaluate and choose to act upon it" (54). Matthew C. Nisbet adds that,

> Frames appearing in the media are most influential when they resonate with an audience's strongly held 'perceptual lenses,' which typically mean strong feelings about another issue suddenly made relevant, or with value constructs such as religious beliefs, political partisanship, or ideology . . . Alternatively, if a frame draws connections that are not relevant to something a segment of the public already values or understands, then the message is likely to be ignored or to lack personal significance. (47-8)

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[22] Within this dissertation, I will sometimes separate between professionally-created media frames (in newspapers, television, documentary film, literature, etc.) from discourse frames (frames evoked in written online discourse on social media, public forum posts, etc.).

There are four points during the communication process when framing may affect the meaning of a message:

1. The communicator (consciously or unconsciously) selects frames for a message based upon his or her own perspective.
2. The texts may contain still more frames,
3. which will then be interpreted by the reader differently based on the frames that direct his or her thinking.
4. If the frames that are contained within a message do not coincide with those that guide the reader's thinking, then the message will either be reinterpreted or dismissed (Lakoff; Entman "Fractured Paradigm").

Media Influence on Public Perceptions

Scholars of the critical framing paradigm (including Entman) argue that framing in the media is often intentional, or based on the agenda setting[23] efforts of media creators and pow-erful elite individuals and groups within a given society[24] (Entman "Framing Media Power" 335). For instance, Van Gorp argues that media creators frequently employ what are called culturally embedded frames to influence public opinion. Culturally embedded frames can be defined as "frames that express culturally shared notions with symbolic significance, such as stereotypes, values, archetypes, myths, and narratives (Van Gorp 85).[25] Media creators are attracted to cultur-ally embedded frames because they are already so engrained in people's minds, and thus, are

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[23] Agenda setting refers to media creators' selection of frames "to influence the salience of topics on the public agenda" (McCombs and Reynolds 1). According to Entman, the first level of agenda setting means effectively "defining those problems worthy of public and governmental attention. Among other things, agenda problems can spotlight societal conditions, world events, or character traits of a candidate" (Entman "Framing Media Power" 336). The second level of agenda setting attributes "centrally involves three types of claims that happen to encompass the core business of strate-gic framing: to highlight the causes of problems, encourage moral judgments (and associated affective responses), and promote favored policies" (Entman "Framing Media Power" 336).

[24] Thus, Entman falls into the critical paradigm of framing.

[25] Myths are similar to narratives, except that they grapple with "the deep truth of human experience" (Silverblatt et al. 144). "A narrative stands for a script structure with a development in different stages, from problem to resolution. Values are reproduced in myths and embodied by archetypes. Archetypes are motifs and characters that help to structure sto-ries; stereotypes refer to the simplified characteristics of group actors" (Van Gorp 85).

easy to drop into communication (Van Gorp 87). Van Gorp and others suggest that culturally

embedded frames are extremely potent when used in media. "Because such frames make an

appeal to ideas the receiver is already familiar with, their use appears to be natural to those who

are members of a particular culture or society" (Van Gorp 87).

In contrast, scholars of the constructionist framing paradigm argue that media framing is

often far less intentional than critical scholars believe it to be. These scholars also cast the public

as agentic beings who have more power to resist and influence media frames than critical schol-

ars assume. According to Hardin and Whiteside, "this view allows for a less institutional, more

agentic, discourse-centered conceptualization of power, one that may allow for a more realistic,

sophisticated understanding of relationships between producers, content, and audience/citi-

zens" (315).

This research tends to take a critical-constructionist view of framing. Though I believe

that media messages are often framed intentionally—particularly where political special interest

groups or for-profit corporations are concerned—I also believe that a great deal of media fram-

ing is unintentional. I cannot make any clear assertions about public resistance to frames, since I

have not conducted an empirical study or ethnographic research. However, it is my belief that

the most likely truth is that public perceptions are shaped by a combination of factors (direct

media influence as well as agency/resistance). I do not think that either the power of media or

individual agency can be overstated.

Frame Types

There are several overarching framing types that guide researchers in the identification

of frames in media texts. For instance, issue-sensitive frames pertain to a specific topic (e.g. cli-

mate change), while generic frames "occur in relation to multiple topics" (e.g. general environ-

mental concerns [de Vreese 189]).[26] Two other opposing frame types are episodic and thematic

frames.[27] According to de Vreese, "whereas the episodic frame depicts political issues as being

tied to specific events, the thematic frame places incidents in a broader systemic context" (de

Vreese 190). The selection of an episodic frame can influence public reception, since "episodic

framing tends to elicit individualistic rather than societal attributions of responsibility while the-

matic framing has the opposite effect" (FrameWorks Institute "Refresher"). Thus, if a media

source tends to produce episodic frames, "its effect is generally to induce attributions of respon-

sibility to individual victims or perpetrators rather than to broad social forces" (Frameworks Insti-

tute "Refresher").[28]

Valence, (which includes loss frames and gain frames) is of special significance to this

study. While loss frames focus on the consequences of negative behavior or inaction, gain

frames highlight the benefits of positive behaviors or social action (Cheng et al. 51; Rothman et

al. 203). Cheng, Woon, and Lynes use the following example to illustrate the use of loss and gain

frames in PSAs:

> The adoption of recycling behavior can be promoted through a gain frame, such as "if
> you recycle, you conserve natural resources," or a loss frame, such as "if you do not re-
> cycle, the environment will deteriorate." Both messages advocate the behavior of recy-

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[26] Since this project focuses primarily on the issue of climate change, most of the examples discussed pertain directly to climate change or a closely related issue. Thus, generic and issue-specific frames will not play a large part of the discussion in this project.

[27] For instance, an episodic frame might focus on a single, minority mother, her inability to find work, and her family's subsequent homelessness. Such a story (which focuses on a single case) might suggest to an audience that the issue is isolated or that the mother's individual work ethic, etc. is to blame. A thematic frame focuses instead on trends, like the high rate of homeless minorities compared with whites in a city, the hiring trends between whites and minorities in the same city, etc. These trends are more likely to cue audiences to attribute an issue like homelessness to systemic short-comings that must be solved by the government, industry, or social changes (FrameWorks Institute "Refresher").

[28] The focus of this project on the global issue of climate change means that generally, most of the texts in this study are framed thematically. Though these texts often contain examples pertaining to individuals, those examples are typically connected to the larger systemic and global problem of climate change. Therefore, discussion of episodic versus themat-ic frames will not be extensively discussed within this project.

cling; however, one emphasizes the benefits of adopting the behavior whereas the other focuses on the costs of not adopting the behavior (52).

Essentially, gain-frames and loss-frames are factual equivalents, two sides of the same coin.[29] The only real difference between them is whether outcomes are framed as benefits or consequences (Toll et al. 2).[30] However, gain and loss frames can greatly impact the reception of a message. Generally, when outcomes are relatively certain and/or costs and risks are low, audiences tend to prefer messages with a gain-frame. Loss-framed messages are most persuasive when the outcomes of behaviors are more uncertain and/or risks or costs are higher (Rothman et al. 202; Toll et al. 2). For instance, messages promoting recycling are more effective when framed as gains, since recycling requires minimum effort, and predictably reduces waste (Cheng et al.; Lindenberg and Steg 117).

Framing Devices and Components

Multiple rhetorical and linguistic devices can help to frame issues in different ways. These devices include catchphrases, sound bites, graphics, and allusions to history, culture, or literature. Metaphors are seen as one of the most effective framing devices to help audiences understand particular concepts from specific viewpoints (Nisbet 49; Gamson). For instance, climatologists often use the greenhouse as a metaphor in order to help people understand how CO_2 emissions are trapped in Earth's atmosphere. With this in mind, it is easy to see how a complex social issue might be misrepresented through the use of an accessible concrete

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[29] "It is important to note that gain-framed statements can refer to both good things that will happen and the bad things that will not happen, whereas loss-framed statements can refer to bad things that will happen and good things that will not happen" (Rothman et al. 203).

[30] Gains and losses can be presented as either local (affecting the viewer and/or the viewer's inner circle directly), or as global (affecting others or the social good more generally).

metaphor. Lakoff uses the framing of tax cuts to illustrate how complex issues can be boiled

down to simple (often misleading) dichotomies.

> Think of the framing for relief. For there to be relief, there must be an affliction, an afflicted party, and a reliever who removes the affliction and is therefore a hero. And if people try to stop the hero, those people are villains for trying to prevent relief...When the word tax is added to relief, the result is a metaphor: Taxation is an affliction. And the person who takes it away is a hero, and anyone who tries to stop him is a bad guy. This is a frame. (Lakoff 1)

The term tax relief works in part because it uses concrete language that evokes an experience

that humans can all relate to—pain. The word "relief" immediately calls up the familiar frame of

pain in the minds of audience members. Notice that within this pain frame—in which taxes cause

pain and tax cuts cause relief— the idea that taxes could be beneficial doesn't make sense. Pain

is obviously bad. Therefore, this frame effectively encourages the audience to ignore any posi-

tive associations with taxes, since the pain frame does not naturally promote such an interpreta-

tion. The frame guides the audience's thinking on the issue. The framing of taxation using a pain

metaphor boils a very complex issue down to simple dichotomies: pain and relief, heroes and

villains, right and wrong. Since simple dichotomies based on shared experiences are far easier to

grasp than the complex relationship of taxation and social wellbeing, people are likely to accept

this frame.

  Ultimately, the present study will deal primarily with culturally embedded frames of cli-

mate change, children, childhood, and occasionally, teens. Those culturally embedded frames

may be called forth in relation to groups like children through the use of ingrained related con-

cepts and stereotypes (children as weak, innocent, etc.) as well as a range of devices, like

metaphors (ie. the child as a delicate flower or as a natural force of energy). As those frames per-

tain to media, this research will adhere primarily to Entman's definition of framing: "to select

some aspects of a perceived reality and make them more salient in a communicating text, in

such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" ("Fractured Paradigm" 52).[31] Of course, frames of groups—like children and teens—will manifest themselves differently than frames of issues—like climate change. However, this research suggests that frames of children and climate change are often intertwined. Thus, a piece of media could frame climate change as a hazard to children's health (a problem afflicting the victimized child), which is caused by the wicked fossil fuel industry (a causal interpretation that makes a moral evaluation), and can be solved through the replacement of fossil fuels with renewable energy (treatment recommenda-tion). In contrast, the fossil fuel industry might ignore the problem of climate change, instead focusing on fossil fuels as the only means of meeting the high energy needs of children, families, and schools (ie making a positive moral judgment about the fossil fuel industry as a dependable provider for the nurtured child).

Why Framing is Important to This Study

I would argue that the framing of both climate change and the role of children in climate change action matter for three reasons. First, the framing of climate change in the media impacts public perceptions of climate change as either a manmade threat, a benign natural occurrence, or a complete hoax. These perceptions can affect the climate change messages that children are given access to, as well as the types of information included in children's climate change mes-sages. For adults and children alike, access to information can mean the difference between an informed citizen who is able to reach well-reasoned conclusions and potential solutions, or a mis-informed, potentially fearful person who is unable to act. Second, media framing of children and

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[31] It is important to note that not all frames address all four of these framing elements. Sometimes, for instance, solutions are left entirely out of the discussion, which generally relates to a negative message valence and the primary use of loss frames.

childhood can affect adult perceptions of those children, and thus, the role that adults allow

children to have in the larger climate change movement. If children are perceived as having lim-

ited mental capacity, then they may be given less detailed information and simplified explana-

tions by adults. If children are seen as weak and fearful, then adults may decide to shield them

from information about the harsh realities of the world's social issues. And if children are seen as

cute and innocent, then their ideas about solving social issues will not be taken seriously. Third

and finally, the information given (or not given) to children and the treatment of children as either

powerful actors or weak victims can have an effect on the role that children imagine for them-

selves in society.

The Framing of Climate Change[32]

As stated in "A Changing Climate of Skepticism," Schmid-Petri et al. state that "climate

change is one of the most polarizing issues in the United States," which "clearly divides climate

change advocates (typically politically liberal) and a strong anti-environmental counter-move-

ment driven by conservatives" (502). Indeed, 22% of Americans continue to view anthropogenic

climate change with skepticism (IPSOS).[33] Lakoff also discusses partisan mental frames of climate

change, suggesting that conservative individuals tend to frame the environment in terms of a

moral hierarchy, in which man holds dominion over nature, and nature exists for human use

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[32] For the purposes of this project, the preferred term climate change will be used except in cases when global warming (another popular term) is used by an outside source. The selection of the term climate change was a difficult one. Although climate change is the most widely accepted term, it was first utilized in order to reframe the global warming issue as less threatening, and thus, less imperative (Luntz Research). Since both terms carry some level of political controversy and climate change is more widely used, climate change will be used within this project.

[33] According to IPSOS, Americans continue to be one of the countries with the most climate skepticism. However, the percentage of climate skeptics has decreased by more than 10% since 2014. Please view the results of this 2016 study at the following web address: www.ipsosglobaltrends.com (IPSOS).

(74).[34] From this standpoint, a "piece" of the natural world is only worth saving if its benefits to

man outweigh the costs (giving up energy use/comfort, profit loss, etc.). So long as it is possible

to deny the existence of global warming, or assert that it is natural (and thus—for religious con-

servatives—in God's hands), then the costs of addressing climate change outweigh the benefits

(Lakoff "Environment" 76). In contrast, Lakoff suggests that liberal individuals are more likely to

empathize with animals and nature, and to perceive of nature as an extension of humanity.[35]

Lakoff writes that empathy "…links us physiologically to other beings (e.g., the polar bears) and

to things (e.g., redwoods) in the natural world" ("Environment" 76). Thus, liberals are more likely

to frame humans as responsible for solving the confirmed problem of climate change ("Envi-

ronment" 76).[36] As of yet, no research exists on the mental climate change frames of children

and adolescents, nor has research been conducted on youth perceptions of climate change.

Research suggests that public perceptions are shaped by media and public discourse,

and vice versa (Johnstone 10). Thus, it is important to consider media message framing of cli-

mate change along with mental frames. Compared with other countries, US news media is more

likely to include skeptical frames of climate change (Antilla; Boycoff and Boycoff; Dispensa and

Brulle; Grundmann; Grundmann and Scott; Painter and Ashe 1; Schmid-Petri et al. 499). Frames

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[34] Lakoff claims that this tendency is based upon a conservative moral code that prioritizes obedience to legitimate authority figures and the pursuance of self-interest in order to become a self-sufficient member of society (Don't Think of an Elephant 8).

[35] Lakoff claims that this tendency is due to a liberal moral system that is based on empathy and the desire to help others and make the world better ("Why it Matters How We Frame the Environment" 76; Don't Think of an Elephant 10).

[36] Of course, categories that place people into neat little boxes are often misleading. Such neat little boxes—in the form of frames—are often what prevents people from understanding or accepting new perspectives. Though Lakoff—who identifies as liberal—admits that "many people have versions of both conservative and progressive value-systems in their brains, but applying to different issues" (76), he does tend to be reductive in his explanations of how conservatives view the world when compared with liberals.

of climate skepticism (found most frequently in conservative media)[37] have shifted from funda-

mental skepticism in the early 2000s (Boycoff and Boycoff),[38] and toward impact skepticism as

the volume of scientific data increased (Smid-Petri 506; Boycoff; Russill and Nyssa; Hickman).

However, in their 2017 study of news media coverage, Schmid-Petri et al. found that the per-

centage of articles containing skeptical frames has remained relatively constant since 2007,[39]

though the focus of that skepticism has shifted: "Today the discussion focuses on the necessary

(or unnecessary) actions to combat climate change . . . current climate change skeptics frame the

discussion in a certain way claiming that binding regulations would harm the economy and

threaten individual freedoms" (508).[40] Schmid-Petri et al. concluded that 88% of 2012-2013 news

coverage framed climate change as anthropogenic, and that skeptical frames of climate change

have become so nuanced and subtle that they are evoked in both liberal- and conservative-lean-

ing media (503;[41] 509[42]). The Frameworks Institute highlighted the tendency of the media to fo-

cus on the costs or human consequences of environmental action, rather than the benefits, and

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[37] Fundamental skepticism refers to frames of climate change as either nonexistent (Rahmstorf), or natural (Rahmstorf; Hobson and Niemeyer), while impact skepticism refers to frames of climate change as having either minimal or beneficial impact (Dunlap and McCright).

[38] Boycoff and Boycoff concluded that 59% of analyzed news articles ultimately denied anthropogenic causes of climate change.

[39] Painter and Asche hypothesize that the 2009 Climategate scandal—in which a conservative think tank leaked unflatter- ing IPCC emails to the press) as a primary reason for continued skeptical media framing of climate change despite scien- tific evidence (7).

[40] This frame has been titled the economy versus ecology frame by Dunlap and McCright.

[41] Research suggests that—despite American expectations that journalism remain unbiased, much of US news media can can be identified as partisan (Hallin and Mancini; Iyengar and Hahn; Levendusky), meaning that they "privilege their po- litical ideology by giving voice to specific issues and their respective advocates" (Schmid-Petri 502).

[42] It should be noted that 76% of the news sources analyzed within the study were identified as liberal-leaning (Schmid- Petri et al. 503).

further suggested that environmentalists and the liberal media often "deliver a [climate change] crisis message" (2).[43]

Political framing of climate change goes back several decades, if not more. In fact, many reports indicate that the term "climate change" was coined by a Republican consultant, Frank Luntz, in an attempt to reframe the issue of global warming. This reframing strategy can be seen in a 2003 memo to the Bush administration (titled "Winning the Global Warming Debate"), in which Luntz writes that "it's time for us to start talking about 'climate change' instead of global warming . . . 'Climate change' is less frightening than 'global warming' (142). Politicians are frequent purveyors of opposing climate change frames, and there is perhaps no better time to talk about the political framing of climate change than right now, in this moment. That is because the recent shift in American political leadership—from Barack Obama to Donald Trump—shows a stark contrast between political framings of climate change (Brown and Sovacool 127). In fact, in separate speeches focused on the Paris Climate Accord, Obama tended to frame climate change as a threat to "future generations," and an opportunity for American innovation, while Trump framed climate change action as a threat to American jobs and economic growth.[44]

With the stark contrast between these two administrations, as well as an increase in natural disasters, the research community is certainly taking advantage of this kairotic moment.[45] Research on climate change has exploded in recent years. However, none of this research per-

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[43] The Frameworks Institute goes on to suggest that such messages often cause people to feel either skepticism toward a potentially alarmist message, or guilty (and thus, avoidant).

[44] Based on Obama's December 12, 2015 Speech, "Statement by the President on the Paris Climate Agreement," and Trump's June 1, 2017 speech, "Statement by President Trump on the Paris Climate Accord."

[45] The word kairos is a rhetorical term, which in Greek "means 'right time,' 'season,' or 'opportunity'" (Ramage et al. 63). Kairos refers to an argument's "timing…or appropriateness for the occasion" (Ramage et al. 116). The kairotic moment is, therefore, the selection of a particularly relevant time to broach an argument, often due to recent events that may sway public opinion. For instance, there is often increased support for gun control legislation following a mass-shooting, and therefore, gun control research or arguments released after a mass-shooting have taken advantage of the kairotic moment.

tains to the framing of either climate change information for children, or children's role in climate change action and discourse. However, children are often at the center of adults' climate change discourse, and youth are also the target of a large (and growing) body of climate change media. This may be because—while many adults wish to shield children from harsh realities—children are simultaneously perceived as good targets for messages promoting particular social values or social change (Westheimer 3).[46] The framing of climate change can have a great impact on both adult and child perceptions of the issue, as well as subsequent participation in the climate change movement. Thus, more research is needed on the framing of youth and climate change in discourse and media for both youth and adult audiences.

Gain and loss frames are somewhat less stable in climate-related advertising because—although 90-100% of climate scientists support the existence of anthropogenic climate change—[47]there are many others who remain skeptical (Cook et al. "Consensus" 1; Cook et al. "Quantifying" 1). This is especially true in countries where lifestyle depends upon fossil fuels and CO2 emissions are high. For instance, according to a 2014 Ipsos Global Trends survey, roughly 32% of Americans disbelieve in anthropogenic climate change and perceive it as no threat, and 43% don't believe that scientists know what they are talking about.[48] For those who view climate change as a natural phenomenon—or even as "a hoax"—the perceived risks of fossil fuel use may also seem small, and potential benefits of action will be seen as unpredictable. Since audi-

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[46] This perception is based on the assumption that children have less experience with climate change discourse, and thus, less rigid frames of reference for the issue.

[47] Also known as manmade climate change. This statistic is based upon six independent studies to gauge consensus amongst climate scientists.

[48] To view this survey, visit the following link: http://www.ipsosglobaltrends.com/environment.html. These numbers have risen substantially from a 2007-2008 Gallup poll, which found that only 49% of Americans believed in anthropogenic climate change, and only 63% believed that climate change posed a threat (Saad).

ences vary greatly in their perception of climate change risk, their response to climate-related

messages may also vary substantially.

The Framing of Youth

Just as people have mental frames about climate change—which are expressed both in

the mainstream media and in our own heads—they also have frames of all other concepts, in-

cluding childhood. A person's mental definition (or cognitive frame) of childhood is likely com-

posed of a mixture of personal experiences, observations of others, and exposure to media and

other forms of communication. Children are often featured in nearly every kind of print and elec-

tronic media produced for adults, including advertising, news and entertainment media. The rep-

resentation—or framing—of youth may depend on the target audience, the background of the

child[ren] (race, class, etc.), the age-group being depicted, and the type of media used for repre-

sentation (entertainment or news, genre, etc.). These representations relate to the circular rela-

tionship of influence between adults' mental frames of childhood and media-makers' message

frames of childhood.[49]

A sizable body of research has already been conducted on the framing of youth, though

much of it is outdated. In 2000, frame analyst Franklin D. Gilliam, Jr. conducted a national study

focused on the framing of children in news outlets. Gilliam found that the two most dominant

frames of youth in the news were the "problem child" (i.e. "troubled youth," found in 11% of

crime stories) and the "imperiled child" (found in 70% of crime stories; 3-4). According to

Gilliam, the imperiled child frame suggests that children are vulnerable and endangered by each

other, adults, and the generally dangerous world (3). In her 2008 study of "child-saving" charity

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[49] By this, I mean that media framing tends to influence viewers' cognitive frames, and in turn, media producers tend to frame issues based on their expectations about the perceptions of target audiences.

campaigns, social scientist Lindsay O'Dell identified a similar child frame, which she deemed the "damaged" child. O'Dell stated that such campaigns often frame children as "as passive agents in their development, and…as signifiers of the dangers of the world…reinforc[ing] a perception of the vulnerability of all children and the need for adult supervision and 'care'" (383). More recently (in 2016), media scholar Emiljano Kaziaj highlighted some potential consequences of such framing: "When children are represented as victims or objects of emotional appeal…media labels them as minor, unprotected and dependent, which points to power relations between children and adults" (438). Media representations of children, according to Kaziaj, frequently include adult voices, adult narratives that reaffirm children's vulnerable status, and high-angle camera shots that reinforce adult perspectives of children (428).

Both public and media perceptions of youth can vary greatly depending on the age group receiving attention. Younger children (generally below the age of twelve) are used more often to appeal to adults because they more readily fit adults' frames of "the imperiled child," which tend to trigger adults' self-conceptions of responsibility, protection, and nurturance (Stephens 58). Teens, in contrast, are more likely to evoke the "problem child" frame, and therefore, they aren't often used to inspire adult social action. Frame Analyst Meg Bostrom writes the following about adults' perceptions of teenagers: "If you are like most Americans, the first thoughts will be negative: wild, irresponsible, immoral, violent. For generation Americans have complained about young people, but today the intensity of concern and level of fear seems deeper" (2).[50] According to Gilliam and Bales, media framing of teenagers as pathological can have exceedingly negative consequences for youth:

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[50] Additionally, race increases perceptions of pathology. Minority teens are even more likely to be framed as pathological, predators, or criminals (Gilliam and Bales 5).

the way news is framed — through visuals, symbols, inference, and language — can trigger either pictures of self-absorbed, potentially violent, amoral teenagers or inexperienced junior adults experimenting with identity in order to assume their role in the community. That act of framing, in turn, can predispose voters to prioritize the allocation of public resources in different ways. For example, voters may choose prisons over education or volunteer programs (Gilliam and Bales 1).[51]

Some argue that these negative frames of teenagers are not only harmful, but inaccurate: "While adults have serious reservations about American youth, the reality is that teens place high value on honesty and hard work, and the vast majority are thinking and planning seriously for the future" (Bostrom 6). Positive frames of both child and teen agency are rare in media.[52] Rather, much past research found that youth who displayed agency were most often framed as "the problem child," "troubled youth," "superpredators,""teen mothers" and "violent student athletes" (Gilliam 3; Amundson et al.; Dorfman and Woodruff; Dorfman et al.; Gilliam and Ivengar; Males; McManus and Dorfman; Kunkel). These frames of youth are more commonly associated with teenagers, and minority youth, who are often "adultified"[53] by the media[54] (Gilliam and Nall-Bales; Gilliam 3). In fact, during my search for youth framing scholarship, I found that the bulk of results focused either on contexts of youth victimization (child abduction, abuse, etc.), or youth risk behaviors (like drug and alcohol abuse, obesity, etc.).[55] Only a handful

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[51] Of course, even the representation of youth as "junior adults" (which is presumably meant to represent a more positive frame of teens for Gilliam and Bales) is problematic, since it suggests that teens will only have significance as individuals and citizens once they reach adulthood.

[52] Childhood studies scholars Alison James and Adrian James define agency as "the capacity of individuals to act independently" (3). In other words, child agency refers to a child's ability to speak and act in accordance with his or her own will, independent from adults.

[53] In her study of the treatment of Black boys in schools, Ann Arnett Ferguson states that adultification occurs when the words and actions of minority youth (or other subordinated youth) "are made to take on a sinister, intentional, fully conscious tone that is stripped of any element of childish naivete" (589).

[54] Gilliam found the same in his own research, stating that "white children were much more likely to be cast in the role of victim; African American and Hispanic children were more likely to be depicted as perpetrators" (5).

[55] This search for articles on "framing" and a number of child-related labels ("kid," "youth," "teen," etc.) was conducted on Google Scholar; all articles on the results list were published in 2012 or later.

of results focused on positive contexts (like youth civic action), though even those largely focused on ways that adults could drive or control youth participation, rather than youth-driven participation efforts. Thus, through topic selection, even researchers help to perpetuate the social framing of children as either troubled and at-risk, or vulnerable and that those frames of youth continue to be dominant today.[56] For this reason, a greater push toward empowering frames of youth and positive frames of youth agency is necessary. This study aims to shed light on the ways in which common adult frames of children (e.g. as vulnerable or innocent) tend to restrict their opportunities for education and participation.

BACKGROUND
Children as Symbolic of Nature

Our frames of children and the environment are connected within larger networks of mental frames. The connections that people make between frames of children and nature have a long history, which can cast some light on the recurring media links between children and environmental issues that will be explored in this project. Adults have made connections between children and nature for centuries, though our frames of these concepts sometimes contradict each other.[57] Children's literature scholars Sydney Dobrin and Kenneth Kidd describe our dual thinking about the child-nature connection as such:

> ...our society's understanding of the relationship between children and nature is, at the most general level, twofold. On the one hand, there is the belief that children are inno-

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[56] Take, for instance, the following article titles:
- "Guaranteeing Broadest Protection to Minors in the Aftermath of Disasters: Re-Framing the International Discussion in Terms of Child Abduction, Sale, and Trafficking" (Scarpa 2013).
- "Saving the Child for the Sake of the Nation: Moral Framing and the Civic, Moral, and Religious Redemption of Children" (Lynch 2014).
- "News Media Framing of Gay Teen Bullying and Suicide" (Greene 2013).
- "Framing Child Sexual Abuse: A Longitudinal Content Analysis of Newspaper and Television Coverage: 2002-2012" (Weatherred 2017).

[57] This is called cognitive dissonance.

cent and/or virtuous, in keeping with the romantic philosophy of Rousseau and other advocates of 'original innocence' . . . On the other hand, the child is still assumed to be devoid of content, in keeping with John Locke's empiricist faith. The child thus has no necessary connection with nature, no experience or understanding of it, so it's our task to educate young people into nature appreciation and analysis. (5-6)

Thus, in one sense, children are often seen as possessing an inherent bond with nature.[58] For instance, scholars Gary Paul Nahan and Stephen Trimble suggest that children actually have an innate need for wilderness. Similarly, Dobrin and Kidd write that "children are still presumed to have a privileged relationship to nature, thanks largely to the legacy of romantic and Victorian literature, which emphasized—often to the point of absurdity—the child's proximity to the natural world and consequent purity" (5). Even when the child is seen as having little experience with nature, the disconnect between child and nature is often seen as a forced separation, based upon the unnatural makeup of modern technological lifestyles. Scholar Richard Louv shares this perception in Last Child in the Woods, indicating that "the rapid slide from the real to the virtual, the mountains to the matrix" is breaking children's natural bond with the natural world (3-4). Louv labels this a nature-deficit disorder ("by no means a medical diagnosis"), and calls for the "reuniting" of children and nature, which will ultimately lead to a natural world that is "more deeply valued and protected" (10, 4). Finally, despite questioning the "absurdity" of some descriptions of the child-nature connection, even Dobrin and Kidd state that "we believe both that children are naturally close to nature and that nature education, even intervention is in order" (5, 7).

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58 Much of this perceived connection between children and nature stems from the wildly popular eighteenth century theory of Jean Jacques Rousseau, who conceived of children as "noble savages" who are born good, but must depend upon adults to protect them and cultivate their natural goodness. As Rousseau states in his 1762 text Emile, "Coming from the hand of the Author of all things [God], everything is good; in the hands of man, everything degenerates" (11-12). Thus, while Rousseau acknowledges that children are born physically weak and ignorant of the ways of the world, he suggests that they are also morally uncorrupted in their natural state.

The perceived connection between children and nature is multi-faceted and often conflicting. Therefore, adults might view both child and nature as delicate, docile, and passive in some contexts, or wild, defiant, and even wicked or dangerous in other contexts. Just as media, literature, and adult culture have often depicted children as innocent and pure in the past,[59] perceptions of children as savage have also existed for generations.[60] For instance, Thomas Hooker likened children to beasts (Calvert 26), and the seventeenth century French physician François Mauriceau warned that, left to their own devices, children would "crawl on all fours like little animals for the rest of their lives" (130). As stated by Karin Calvert in Children in the House: The Material Culture of Childhood 1600-1900, babies were perceived by early American settlers as "parasitic and selfish creatures, greedily absorbing the vitality and the milk of the woman they suckled and quite incapable of feeling any sort of affection for those who cared for them" (34).

These perceptions of simultaneous vulnerability and savagery may help to explain adults' efforts to control child and nature. Consider the following discussions of relationships between adults and both and nature and children in early US history:

> By the time the United States was established with the Declaration of Independence in 1776, western European culture had developed a philosophy toward nature that emphasized materialism and humanity's right to dominate its environment . . . Using technology to tame nature was a lesson the Europeans brought with them to the New World— and one they would energetically apply in taming their new environment. (Kline 15)

> Puritans did not sentimentalize childhood; they regarded even newborn infants as potential sinners who contained aggressive and willful impulses that needed to be suppressed . . . They were convinced that molding children through proper childrearing and education was the most effective way to shape an orderly and godly society. Their legacy is a fixation on childhood corruption, child nurture, and schooling that remains undiminished in the United States today. (Mintz 10)

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[59] See stories like Spyri's Heidi, MacDonald's At the Back of the North Wind, etc.

[60] See stories like Kipling's The Jungle Book, Twain's Tom Sawyer, Barrie's Peter Pan, etc. Of course, there are also plenty of Victorian children's books that question depictions of children as either pure and innocent or defiant and savage (and even those listed here do show gradation in children's behavior), but this project is currently concerned with basic frame types.

As shown by the use of words like "dominate," "tame," "suppress," "mold," and "shape," adults have sought to control children and nature throughout US history (and no doubt, throughout human history generally). Furthermore, that control is seen as both necessary and moral, since society operates largely on the ability to control what is wild and uncivilized. Adults are viewed as strong-willed and civilized in comparison with both children and nature, and thus, they are also seen as responsible for the simultaneous control, cultivation, and protection of both child and nature.

In some contexts, the evocation of opposing frames of child and nature may cause adults to take a protective stance of one, and a defensive stance against the other. For instance, news stories about children victimized by natural disasters might frame children as innocent and vulnerable, while nature is framed as a wild and dangerous threat to our chosen way of life in a modernized world. Thus, while many adults envision a bond between youth and nature, they also wish to protect kids from the potential threats of devastation caused by nature. These dual (and often conflicting) perceptions of children and nature result in dual (and equally conflicting) intentions for educating and communicating with children about the natural world. American adults ultimately want to teach kids both to protect nature, and to respect the consumption-based American lifestyle, which requires dominion over nature (and ultimately, the destruction of nature).

Children as Symbolic of the Environmental Movement

Given the longstanding connections between children and nature, it is unsurprising that children have frequently come to symbolize the environmental movement, even as they are not allowed to fully participate in that movement. This can be seen in many of the protest posters

that were printed for the People's Climate Marches of 2014 and 2017 (see figs. 1-8). At the 2017

People's Climate March, for instance, hundreds of professionally-designed, child-focused protest

posters were distributed. Surely, the number and variety of different poster designs featuring

children is no accident. One poster depicts a child chasing after a balloon that represents the

earth, as if her future on this planet were escaping her grasp (fig. 1). Another features a wide-

eyed child holding a pinwheel as she gazes hopefully into the future (James; fig. 2). Chip

Thomas's poster includes the photo of a chubby-cheeked little boy with his eyes directed up-

ward at a large chunk of coal that seems about to crush him (fig. 3). Meanwhile, Huey Fairey's

poster centers on the back of a child who watches wild horses roaming the plains beneath a

mountainous horizon (fig. 4). The poster's call to "protect the sacred" seems to extend to both

the natural world and the child within it. Josh MacPhee reimagines an old war propaganda

poster in which children ask their worried-looking father, "Daddy, what did YOU do during the

Great War?" In MacPhee's version of the poster, this family lounges in their flooded living room

while wearing oxygen masks, as the little girl asks, "Daddy, what did YOU do during the Climate

War?" (fig. 5). Finally, Faviana Rodriguez illustrates a mother staring at the viewer with a baby in

her arms, below the caption "Defend Our Mother" (fig. 6). This poster hints at a grim fate for

seemingly helpless children if their true mother—Nature—were to be destroyed.

Ultimately, these illustrations of adorable, wide-eyed, sometimes [pro]active children

equate the child with the natural environment, while simultaneously reminding viewers of those

who will inhabit that potentially degraded environment in the future. Perhaps by evoking those

mental links between children (who are often considered sacred by humans) and nature (which is

often neglected by humans), designers hope to elevate adults' sense of responsibility for the

state of the natural world. In some of these posters—especially the coal poster designed by Chip

Thomas—both children and nature seem under a threat posed by the excess of modern life: the need for more fuel, more technology, more belongings, and more control over the natural world. This threat essentially helped to drive what many think of as the modern environmental movement.

History: Kids In[spiring] Action

Environmental concerns have existed for much of our species' history, though what many people think of as the modern environmental movement began in the late 1950s and early 1960s. Children are not featured with any regularity in history books about this movement, and books about "youth action" generally refer to college students. Indeed, while perusing books about environmental movement history, one might get the sense that kids sat passively at home throughout the 1960s, while adults and college students made the world a greener place. Despite appearances, however, youth helped to drive the environmental movement in a few key ways, both as an inspiration for action, and sometimes as the source of action.

The use of the atom bomb during World War II caused many to question the trajectory of the human race and its use of technology. This was followed by the 1962 release of Rachel Carson's book, Silent Spring, which shocked an entire young generation into awareness about the effects of man-made chemicals on whole ecosystems. Simultaneously, women's magazines of the early 1960s began raising awareness of environmental hazards, which in turn drove middle-class housewives to push the budding environmental movement forward (Rome 34). As stated by historian Adam Rome, "The stakes were the sanctity of the home and the well-being of the family. For many middle-class women, the environmental cause seemed a natural extension of their concerns as housewives and mothers" (34; Hurley 56-57). Magazines like Redbook, Good Housekeeping, and American Home educated mothers about the threats that pollution posed to

their children, and how to "protect your family" from those threats (Rome 34; Carson 47-8; Milton and McLeod Wylie 45-46; Toffler 42-43, 128-30). Thus, much of the environmental action at that time stemmed from those same frames of childhood vulnerability as exist today.

By the late 1960s, however, the environmental movement was most strongly associated with young people (many of whom were also involved in anti-war protests). Cultural anthropologist Margaret Mead suggested that growing up under the threat of nuclear warfare gave the youth of the late 1960s a better understanding of impending environmental crisis: "They have never known a time when war did not threaten annihilation...When they are given the facts, they can understand immediately that continued pollution of the air and water and soil will soon make the planet uninhabitable" (58-59). The media began calling the environmental movement a "youthquake," and "all were convinced that young people could change the direction of society" (Rome 77). Of course, that "youthquake" generally referred to college-aged youth, and indeed many of the environmental teach-ins leading up to the first Earth Day on April 22, 1970 occurred on college campuses. While many K-12 schools did plan activities for the first Earth Day, those activities generally involved surface-level participation, like writing environmentally-themed poems, letters, or clearing school grounds of litter.

But kids were not to be left out of genuine participation. As planning for the first Earth Day grew closer and word got out, the organizer involved in school relations, Bryce Hamilton, received more and more requests for help in planning Earth Day events at their own schools, and the majority of those letters came from students. One letter from fifth grader Jerry Murphy would be published in several newspapers as a symbol of children's desire for involvement: "Please send me all the information you have on Earth Day . . . I am in the fifth grade and would like to organize my community. The teachers and adults of my area are less aware of the urgency

of this problem than the children and I would like to make them aware. I will send some money

when I can" (Hamilton 14). Of those junior and high schools that did have larger Earth Day

events, most were organized by students (sometimes against great pushback from administra-

tors, who worried about the detraction from classroom learning or the age-appropriateness of

the subject-matter). Wrote one high-school organizer in Bethesda, Maryland, "The degradation

of the environment brought out the typical teenage angst and the '50s contempt for anyone

over 30—they'd screwed everything up" (Rome 105, 107; Conrad).

While some adults largely overlooked children's desires to participate in the environmen-

tal movement, others saw that desire as an opportunity. For example, early clips of the "don't be

a litterbug" campaign (which originated in the 1950s and ran for decades) display the child's

persuasive power over parents' irresponsible behaviors. In one such PSA, a little girl named Su-

san Spotless chides her litterbug father: "Daddy, you forgot! Every litter bit hurts!" (Keep Ameri-

ca Beautiful 1961).[61] In this sense, children were cast as the watchdogs of poor adult behavior,

tasked with gently scolding their parents for neglecting their environmental morals. What is most

significant about this campaign, however, is that it was created by a consortium of industry

groups known as Keep America Beautiful, with the objective of reframing the environmental de-

bate. The organization hoped to use the campaign—and children—to shift responsibility away

from the corporations producing packaging waste and toward the consumers who dispose of

that waste (Rogers; Plumer). As this example shows, the discussion of children's role in environ-

mental action is multi-layered and intricate. While children inspired action, they were often kept

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[61] This ad also finishes with Susan's jingle: "Please, please, don't be a litterbug, cause every litter bit hurts." To see the full PSA, please visit the following web address: https://www.youtube.com/watch?v=qd_iM4hMWyI (Keep America Beau-tiful).

from taking action, or their actions went unseen. Those actions that were encouraged or visible were sometimes based on adult manipulations.

Yet children and teenagers played an invisible but powerful role in the early days of the environmental movement. Concern for kids acted as a driver of the movement in the early 1960s, and, despite being forgotten on the margins of Earth Day preparations, kids pushed to participate. Kids have always pushed to participate, as they continue to do now. In fact, as youth perspectives in some of the following chapters show, youth today carry some of the same atti-tude toward the older generation as that Bethesda, Maryland organizer did in the 1960s: adults have screwed things up for the younger generation. Now they need to move over and let youth take the wheel. Unfortunately, many adults are not ready to let kids steer, or even have a hand in mapping out the path that humanity will take in the future. Adults' desire to protect childhood innocence and shield youth from harsh realities is often much stronger than their desire to pre-pare youth to survive within those realities.

To Protect or Prepare?

Many American adults see innocence[62] as an inherent right of childhood, which should be protected. The maintenance of innocence, however, requires sheltering individuals from knowledge. There are many frightening social issues that have negative impacts on humans of all ages (poverty, racism, classism, and human rights violations, to name a few). Children often pay a high price for adults' [somewhat unrealistic][63] attempts to shield them from issue awareness, since that protection restricts fruitful, cross-generational discussions, and leaves children less

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[62] Innocence, according to scholars Allison James and Adrian James, is "used to describe a state of being that is both naïve, in the sense of lacking in experience and certain kinds of knowledge, and free from moral guilt" (68).

[63] Unrealistic because many children already experience these frightening social problems, and those who don't are able to seek out information about those topics on their own.

prepared for the future they will face. Climate change is a particularly good example of how damaging and unrealistic this kind of informational gatekeeping can be.

Climate change has been described as one of the most alarming problems of our modern world, and thus, the issue is also frequently seen as inappropriate for children. However, some studies show evidence that children are more climate conscious than adults realize. A 2015 study of 1,576 middle schools students showed that the majority were aware of climate change and believed that it was occurring (Christensen and Knezek). Furthermore, a 2016 study of 378 middle school students demonstrated that youth are likely to bypass adults in collecting climate change information online and in other forms of media (McGinnis et al.). As scholar Susan Jean Strife writes in her article, "Children's Environmental Concerns: Expressing Ecophobia," youth are likely to go in search of the information available whether or not adults create children's climate change materials. Strife indicates that many children are already aware of environmental problems, and they do worry about those problems. In fact, in interviews with forty-one children, she found that 38% brought up concerns about global warming of their own volition (42). Strife argues that "children are important environmental stakeholders…facing the pernicious effects of local and global environmental degradation," and thus, they deserve whatever facts adults can provide to prepare them for dealing with these issues (37). By denying children's environmental awareness, adults ultimately fail to both protect children and prepare them for problems that will affect them in significant ways, while also dismissing the possibility that children could play a more active role in social change efforts (Strife). This dissertation will argue that—instead of being used as persuasive tools in adults' climate change arguments—youth should actually be included in discussions and decisions about climate change.

Of course, there are different ways of thinking about children and childhood in relation to issues like climate change, and those different perspectives are reflected in the climate change-related media that adults produce for and about children. While some examples seem to strive toward preparing youth for a climate-affected future, others aim to soften the issue (some almost to the point of rendering the problem benign). Most media examples involving youth and climate change are a blend of these two perspectives, perhaps demonstrating the kind of complex mental tug-of-war that all humans experience when trying to understand and categorize people and issues. The sometimes sloppy, often overlapping divisions in climate change framing within the media reflects the complex divide in our own perspectives of children. Though most people know children who are skilled, knowledgeable, and even accomplished, powerful frames of children as innocent and vulnerable often win out—especially in the realms of official media production, like the publishing industry, news and educational media, and advertising. Thus, the tendency toward protecting children from potentially frightening information may be more frequent than the practice of providing kids with all the facts and preparing them for action.

One might wonder at the fairness—or practicality—of this imposed innocence, particularly when it impedes the younger generation's opportunities to take action against the world's most ubiquitous problems. By protecting youth from knowledge, adults also deny them a voice or any sense of control over their own futures (which, in a sense, could create even more fear). Many of the media texts highlighted in this project—whether they were created for adults and merely feature children, or were created for children themselves—seem to stem from the frame of children as vulnerable and in need of adult protection. This is evident either in overt demonstrations of children as needing protection, or in the ways that adults withhold information that is seen as potentially harmful or scary for children. Of course, not all adults call for this imposed

ignorance. Some suggest that children must be prepared for an environmentally-devastated future in which they will struggle to survive, just as others work to protect children from the environmental movement, which some see as needlessly threatening our modern way of life. This all depends on the context in which nature or child is being framed.

METHODOLOGY

In order to answer my theoretical questions, I used a combination of qualitative methods for the analysis of primary media texts and associated discourse. These methods included the identification of message frames through qualitative content analysis, in order to situate media texts and frames within a broader social context.

Selection of Media and Discourse Types

This project involved the examination of multiple primary media texts from three separate media formats, which were selected in order to reflect the permeation of child and climate change frames in media for and about children. These selected media formats were as follows:

- Social marketing messages and public service announcements (PSAs)
- Educational Media, including curriculum, educational documentaries, learning websites, and worksheets
- Children's climate change fiction (commonly known as cli-fi)

In order to provide a richer context for the primary texts under examination (as well as a more nuanced perspective of embedded frames), discourse surrounding primary media texts[64] was also examined. Frame analyst Barbara Gray calls for the analysis of discourse texts in conjunction with primary media texts, since these texts offers a more complete picture of issue framing (20). For instance, if the frames within a media text are analyzed in isolation, then a re-

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[64] By discourse, I mean formal and informal written communication that references or pertains to the primary texts under analysis (ie books, educational curriculum, social marketing messages and PSAs, etc.)

searcher is only capable of understanding that text within a bubble. By examining the discourse surrounding that text, however—including discussions of the text by the producers of the text, responses from the public or news media coverage—a researcher can gain a better picture of how the text is engaging with the world.

Though such discourse was not always available or readily accessible, it was used and discussed where possible and appropriate. Secondary discourse text types included the following:

- Corporate discourse, including company press releases, letters, and website information
- Governmental discourse, including court documents, governmental reports, and press releases
- Media discourse, including newspaper articles and video clips
- Social discourse, including forum posts, social media posts, blogs, and reviews of selected media

Selection of Media Texts

The broad range of media under analysis within this project required a careful and systematic basis for the selection of texts. Within each chapter, primary media texts and secondary discourse were systematically chosen based on a few key components (detailed below): organization size and reach, media content, date parameters, and age (pertaining to the ages of youth as either media focal points or audience members). These parameters helped to maintain consistency throughout the project:

1. <u>Organization Size and Reach:</u> Since this study is primarily concerned with social perceptions within American culture, it was important to select texts with broad, nationwide distribution. Thus, whenever possible,[65] texts were selected from the largest or

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[65] Exceptions were times when it was either impractical or inappropriate to examine the largest or most popular media producer. For instance, in chapter three, one goal was to compare the framing in texts produced by the nation's largest children's publishers with texts produced by small, independent publishers of environmental literature. Therefore, the examination of smaller organizations was necessary within that chapter.

most popular media producers in the country.[66] These parameters of size and reach pertained to the selection of nonprofit environmental organizations, oil and gas companies, news media outlets, social media sites, YouTube video viewership, children's publishing houses, and children's media generally.[67] For details on the organizations selected for this project, please see chapter appendices.

2. <u>Media Content:</u> Media was only selected for examination if it was produced in English, contained a focus on climate change-related issues,[68] and either included or addressed children (see age parameters below). Both video and print media were considered during the selection process.

3. <u>Date Range:</u> All selected media and discourse was produced or posted between 2006 and 2017, marking roughly a decade since the release of former Vice President Al Gore's landmark documentary, An Inconvenient Truth (which is largely credited with reinvigorating public discourse about climate change in the 21st century). The inclusion of 2017 in this "decade" of climate change media is important, since climate change media and discourse has essentially exploded since a self-identified climate skeptic was sworn into office in January of 2017. As climate change writer Adam Trexler suggests, publications about climate change have tended to "swell" during periods "when there appeared to be little hope of American leadership on environmental issues" (8).

4. <u>Demographics:</u> In order to be inclusive of a range of youth perspectives, loose age parameters were generally used within this project. Though all texts analyzed within this project either focused on or targeted youth, flexible age parameters were implemented when selecting texts for each chapter (generally pertaining to youth as

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[66] This includes the companies and nonprofit organizations selected, news media outlets, children's publishers, educational media, social media sites, etc. The decision to select organizations based upon either the size of the organization or popularity ensured that both broadly recognizable organizations and key players in climate discourse were considered, and that public exposure to this media was high.

[67] More specific details for the selection of specific media texts can be found within an appendix at the end of each chapter.

[68] Fossil fuel and nonprofit advertising necessitated different definitions of "climate-related issues," since—as framing scholarship indicates—the inclusion of environmental buzzwords would be bad practice for opponents of climate change action (Lakoff "Environment"). Instead, fossil fuel advertisements were considered connected to the issue based on data linking fossil fuels to climate change.

young as four, and as old as eighteen).[69] These age parameters are based on the inductive discovery[70] that extremely young children (babies and toddlers) are rarely discussed or targeted within climate change media messages, and youth above the age of eighteen are rarely accepted within child or teenage frames. Youth perspectives and representations were never excluded from this study based on race, gender, or socio-economic backgrounds. Rather, any limitations in these areas are strictly a reflection of the choices made by media producers.

ANALYTICAL METHODS
Qualitative Content Analysis and Frame Identification

Qualitative content analysis was used to code all selected media messages for the presence or absence of basic message framing elements. This content analysis involved the identification of relevant keywords, concepts, and images within the selected media texts, while also noting what was missing from those texts. As a method of analysis, qualitative content analysis offers many benefits, including "the opportunity to investigate complex constructions of meaning, and their linguistic, affective, cognitive, social, cultural, and historical significance" (Gilliam 2). Furthermore, others suggest that content analysis is far less obtrusive than other forms of research. As stated by frame analysts Lewicki and Gray, "Since messages are analyzed after they

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[69] This range shifts somewhat throughout the project, depending on chapter focus. For instance, chapter one focuses primarily on representations of youth twelve or younger, since that chapter is primarily concerned with adult frames of children, and younger children are particularly effective at triggering adult frames of responsibility, protection, and nurturance (Stephens 58). Chapter two (which focuses on climate change education in schools) pertains primarily to youth ages eight to eighteen, since youth under the age of eight are often seen as too young to learn about climate change, and many schools fail to provide climate change education before high school (if at all). In chapter three, age parameters are narrowed to focus primarily on climate change fiction for children between the ages of eight and twelve. This narrowed range was selected for a few reasons: first, the volume of climate change fiction existing today necessitated a smaller age range. Second, studies show that youth between the ages eight and twelve are the most avid readers amongst all youth (NCES "Reading," NCES "Average"). Third, because youth younger than eight are often seen as less-prepared for climate change information (NGSS), and thus, there are fewer cli-fi texts available for that age group. Chapter four focuses on a particular case of youth climate change action—Juliana v. United States—which includes children between the ages of nine and twenty-one (though some were as young as six when the case was first filed in 2015). This case highlights differences in public perceptions between the younger plaintiffs (ages eight and eleven) and an older plaintiff (aged sixteen), and thus, a broad range of ages was necessary in this chapter. For more details on text selection, please see the first appendix of each chapter.

[70] Inductive analysis involves the observation of patterns in the texts selected for analysis (as opposed to the deductive method, which begins with a set of codes or themes that the researcher is looking for within the texts [Blackstone 41]). My research involved different 'passes' through the selected texts, sometimes in an open-ended observation of patterns, and other times with a strict focus on Entman's framing elements and other related concepts.

have been uttered, the content analysis strategy does not generally run the risk of polluting data

sources…subjects are free to express themselves in their own terms rather than having their re-

sponses restricted by, for example, prescribed answers on a survey form" (8; Krippendorff). De-

spite these benefits, Gilliam also admits that content analysis is time intensive, occasionally re-

ductive, and poses a greater risk of coder error than quantitative methods (3). I attempted to

mitigate these risks by establishing a protocol for identification and analysis, and reviewing texts

for consistent coding (see appendix A for examples of the coding structure).

During the content analysis process, priority was given to the identification of basic mes-

sage framing elements, with special attention paid to the framing of youth, childhood, and cli-

mate change. The following elements of message framing are identified by Entman ("Fractured

Paradigm" 52):

1. <u>Definition of the Problem:</u> The explicit or implicit identification and/or explanation of the issue under discussion.
   - Examples: climate change and related issues; threats to children

2. <u>Diagnosis of Causes:</u> The explicit or implicit attribution of the problem to specific causal agents.
   - Examples: emissions caused by the fossil fuel industry, adult apathy, people in general, etc.

3. <u>Moral Judgments:</u> The explicit or implicit association positive or negative traits with the parties involved (including causal agents, victims, and parties responsible for devising and implementing solutions), with special attention paid to representations of youth.
   - Examples: youth as either helpless victims or resourceful and powerful, adults as ignorant, etc.

4. <u>Suggested Solutions:</u> The explicit or implicit suggestion of remedies to the problem being discussed.
   - Examples: individual actions like recycling, social actions like political protest, etc.
   - Within this project, special importance will be placed on the framing of suggested actions (either the consequences of inaction, known as loss frames, or the benefits of action, known as gain frames).

Entman's list of framing elements is vital in pinning down the larger framing of climate change for children. Message framing systems can be further nuanced through the identification of a few additional elements, including the identification of responsibility and loss versus gain frames within a text. Responsibility—which indicates which parties are expected to fix or solve identified issues—cannot be seen as the same as causal diagnosis. This is because while one person, thing, or group may be identified as the cause of a problem, an entirely different person or group may be identified as responsible for fixing that problem. Furthermore, the identification of responsibility may have the power to influence the viewer's urgency to act. Responsibility is also important to this project, because those texts that identify youth as potential agents of change may have a much different impact than those that treat youth merely as the victims of climate change. Loss and gain frames, in contrast, focus on the motivations for action—either to avoid particular consequences, or to gain particular benefits. Additional elements under examination included overall mood or tone (positive and negative language use), as well as concrete and metaphorical language. On occasion, still and video images will also be analyzed for their general support or contradiction of the associated text.

Youth Demographics: Race, Class, and Gender

Although this project does not deal extensively with race, class, or gender, it is true that those of particular race and class backgrounds tend to experience greater rates of environmental injustice (deemed environmental racism and classism). The term environmental racism was coined by activist Benjamin Chavis in 1987. Chavis writes that,

> Environmental racism is racial discrimination in environmental policy-making and enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life threatening poisons and pollutants for communities of color, and the history of excluding people of color from leadership of the environmental movement. (xii)

Similarly, environmental classism "maintains that poor communities are targeted for environmental hazards" (Allen 15). This project neither sought out, nor excluded, perspectives and representations of youth based on race, class, or gender. Rather, the youth included in all media examples are reflective of media producer choices.

While issues of environmental racism and classism go far too deep to allow for an extensive exploration within this study, it is important to point out a few observations in the media discovered during this project. Minority and low-income youth have not been left out entirely from climate change media and discourse. However, much of the media explored during this study shows the prioritization of middle-class, white lifestyles and experiences. For instance, 59% of the available advertisements studied in chapter one featured seemingly middle-class,[71] white youth. Although 41% of the examined advertisements featured minority youths,[72] these individuals often appeared only briefly within ads that included small parts for several youths (with many, and sometimes the majority, being white). When minority youth were featured alone in ads, they frequently appeared outside, in what appeared to be lower-income neighborhoods or impoverished global south villages (most frequently in UNICEF advertisements). In some instances, minority individuals are used in ways that seem to evoke popular frames of both youth and minorities. For instance, Huey Fairey's protest poster seems to simultaneously draw forth perceptions of the cherished, natural child, and the deep respect for nature that is commonly associated with Native American culture (see Figure 7). At other times, minority and low-income

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[71] This middle-class designation can only be loosely estimated based on the state of the featured child's surroundings, clothing, etc. However, there is no true means of accurately determining the intended class of featured individuals and actors.

[72] For instance, Asian, Black, or Latino. Again, there is no way of determining racial background with complete accuracy. This determination was made purely based on appearance.

youth seem to be ignored altogether in favor of middle-class, white youth.[73] This project points

to the ways that youth are reduced to particular, simplified stereotypes and representations, and

race only adds to this problem. It is important to avoid conflating representations of one subor-

dinated group with those of another. Though race is discussed on occasion, this study is focused

primarily on the subordinated group of youth, without delving too deeply into issues of race and

class. However, a more complete exploration of minority and class representations could play an

important role in future youth research.

Finally, the media examined within this study shows a general split in representations of

male and female youth. Ultimately, this study did not look extensively at the issue of gender

within climate change media, though media examples were never excluded on the basis of gen-

der. It is possible to point out a few observations in the media, however. For instance, in some

cases—like Strasser's cli-fi baseball book, "Roberto & Me"—the author seems to be using a

sport popular with young males to draw them into the conversation about climate change. In

other cases, however—like in both the Josie Goes Green and the Justine McKeen series—girls

are targeted as potential agents of change. This may reflect multiple studies that show females

to be more concerned about the environment than males (Blocker and Eckberg; Davidson and

Freudenburg; Dietz et al.; Greenbaum; McCright; Xiao and Hong). Much of the media examined

within this study, however, seems to feature or target both sexes (e.g. Corwin's "Alaska Adven-

ture," most examined climate change curriculum, etc.). Ultimately, those youths featured or ad-

dressed in the body of media available for this study reflect the choices of media producers. Al-

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[73] This focus on middle-class youth may be a decision to prioritize parents with ample resources, and greater power to impact change. However, interviews would need to be conducted with media producers before these decisions could be explained with any certainty.

though I was unable to engage deeply with issues of race, class, and gender within this study, I hope to do so in future research.

Chapter Summary

Chapter one focuses on the use of children social marketing messages and public service announcements (PSAs) created by oppositional forces within the climate change debate: the fossil fuel industry and environmental nonprofit organizations. This chapter demonstrates how—despite vastly different perspectives on climate change—all featured organizations use children to sell either climate action or fossil fuels as necessities for human survival. This chapter highlights common adult frames of children and childhood in American culture, and how those frames are evoked for persuasive purposes. In this way, children are involved in the climate change debate without truly agential participation.

Chapter two centers on the ongoing national debate about climate change education in schools, including the controversial introduction of the Next Generation Science Standards (which include the required teaching of anthropogenic climate change), a variety of examples in climate change curriculum, and the public online discourse surrounding climate change education. This chapter ultimately argues for open conversations with students about the nuances of the climate debate, rather than shielding youth from the facts (and politics) involved.

Chapter three includes an extensive discussion of the emerging genre of children's cli-fi (climate change fiction), which aims to both entertain and educate youth about the issue of climate change, by weaving discussion of the issue into a fictional narrative. The examination of cli-fi books published by some of the largest children's publishing houses, as well as two environmental children's publishers reveals vastly different frames of climate change. This trend points to

potential differences in industry interests, as well as the resistance of media producers in trusting children to handle extensive climate change information or calls to action.

Finally, chapter four focuses on examples of youth climate action. This chapter pays special attention to a landmark lawsuit involving twenty-one youth who are suing the United States government for increased climate action, on the basis that the government's failure to act violates the public trust and the youths' constitutional rights. While this chapter also demonstrates some of the ways that youth are used by adults to persuade others, it also highlights youth efforts to participate in the climate change movement as true agents of social change, and how they must navigate communication with adult and youth audiences differently. Finally, this chapter compares the ways that adults frame youth activists with the ways that youth activists frame themselves.

CONCLUSION

Though this project does not focus extensively on youth rights, it does draw attention to the ways that media and public discourse tend to perpetuate youth stereotypes, which may have an indirect impact on the rights granted to youths. Though young Haven was allowed a voice in her local town hall meeting, her age limits her access to climate change information and opportunities to participate in many other ways. COPPA laws largely restrict her from sharing her perspectives or engaging in discussions about climate change online. Her state's educational standards may dictate how and what she learns about climate change in school. And even the literature and media created for kids her age may frame climate change in ways that skip over important information and minimize potential threats. Adults' concern with protecting the perceived right of children to an innocent, carefree childhood ignores the complexities of children's individual lives. Indeed, many children lack the life circumstances for an innocent, carefree childhood

even with such protections (and children who undergo stress related to environmental classism or racism are certainly among them). Even those children who might receive short-term mental relief by being sheltered from potentially scary information about climate change will likely be harmed by such protections later in life. Such protections may ultimately leave children in a "sink or swim" situation (without even the most basic knowledge about how to swim in the first place).

Although many adults have imagined a passive role for youths in climate change discourse and action, that is not always the role that youths imagine for themselves. Though youth perspectives and actions are often hidden from public view, available examples of youth participation demonstrate that many kids are ready to play a more active role in addressing climate change.[74] Haven's statement at her town hall meeting is only one such example. Such examples demonstrate the complex and varying role of a youth activist—who must sometimes embrace adults' frames of youth and other times challenge them—in order to participate in the important discussions and decisions affecting their lives.

This project is a study in American adults' frames of youth, and how those frames impact youth climate education, access to information, and opportunities for participation in climate change action and discourse. Across each chapter, these frames demonstrate the many ways that youth fit into the national discourse about climate change: as victims or innocents that inspire adult action, as vessels for adult-selected messages, as partners in action, and as agents of change. These frames—which appear in a wide range of media and discourse—are constantly shifting and often overlapping. They reflect adults' simultaneous and conflicting desires to both

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[74] Of course, like adults, youth vary in their perceptions of how to address the climate crisis, or even whether that crisis is legitimate. Many youths are interested in standing up for climate change action with the intention of protecting their futures, while others are standing up for the belief that a robust fossil fuel industry is vital to children's futures and the futures of those they care about. The ways that both adults and youth frame climate change may depend greatly on how climate change fits into their own worldviews, and their own perceived needs for survival.

shield youth from fears about the future, and prepare youth for that same future. Within the fol-

lowing chapters, I argue that youths are being used to drive adults' agendas without being in-

cluded in discussions, and that they are being "protected" from information at the expense of

having a real, informed chance to protect themselves from a potentially altered-climate future.

The examination of multiple types of media and online discourse reveals the potential damage

that these frames may cause to youth, while also pointing to the mutually-beneficial, cross-gen-

erational partnerships that could result from the reframing of youth. This study demonstrates

that, while adult-child power relations or adult perceptions of youth cannot be wholly upended,

they can be negotiated by youth activists who wish to participate more fully alongside adults.

Based on this analysis, I believe that the reframing of youth could result in greater youth access

to information, increased understanding of social problems like climate change, and greater op-

portunities for meaningful participation in social action efforts and public discourse.

CHAPTER 1:
THE VARIED FRAMING AND REPRESENTATION OF YOUTH IN CLIMATE CHANGE-RELATED SOCIAL MARKETING MESSAGES

"Let's not leave this for our kids to figure out. Our today, their tomorrow."
- OnGov

"So please join me…to change the forecast for children. Fight unfair."
- UNICEF

"Let's leave the lights on for her when she's your age."
-    -   -   -   -   -   -   -
"We all believe we can have a better energy future if we never lose that fresh, open mind of kids." - Royal Dutch Shell Oil

"Shell is polluting our kids' imaginations."
-    -   -   -   -   -
"Your child is growing. Not as fast as the oceans are rising."
-    -   -   -   -   -   -
"If the North Pole melts, where will Santa live?"
- Greenpeace

INTRODUCTION

If you want to get a sense of the popular positioning of children in the larger climate change debate, social marketing[75] is a great place to look. The social marketing arena is also an interesting space for exploring the battle between climate change believers and climate change deniers more generally, since social marketing messages (SMMs) and public service announcements (PSAs)[76] have been created by some of the most powerful forces on each side of the is-

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[75] Social marketing is advertising meant to persuade viewers to either maintain or alter their behaviors for the perceived benefit of individuals or the social good (Charry et al. 244). However, these messages are also typically produced by for-profit companies, and are seen as beneficial to those companies because they promote a positive image of the company, or drive policies that may be beneficial to the company.

[76] Public service announcements (PSAs) are also a type of advertisement, though the ultimate objective behind a PSA is not to market a product or skill that generates profit. As defined by scholars Kim and Choi, "The main purpose of a PSA is to educate the audience and promote a behavioral change" (1245).

sue: largely, the fossil fuel industry and nonprofit environmental organizations. Social marketing slogans—like the ones featured above—are often concise, punchy snippets of language packed with sensory information. When these punchy slogans are directed toward social change and paired with images of children and childhood, they offer a glimpse into the framing of particular issues, values, and even childhood. The above quotes come from a variety of non-profit, governmental, and for-profit social marketing campaigns, including UNICEF, Greenpeace, Royal Dutch Shell Oil, and the Ontario Government. As these quotes demonstrate, climate change and energy advertising[77] efforts often give children a starring role.

While ads are frequently too short to offer much in the way of extensive problem definition and comprehensive solutions, they do offer frames for how viewers' might think and feel about the climate issue and the players involved. These frames use visual language and underlying value systems to inspire joy, guilt, and compassion. And—in at least the eighty-one cases represented in this chapter[78]—these appeals are built with the very blocks that compose popular frames for conceptualizing childhood.

So without any other context, what do we get from the tag lines above? How do they betray some basic western assumptions about the child and his or her role in the climate crisis? We see children as passengers in the present, and the drivers of tomorrow. We see children as inquisitive, imaginative, innocent, all those "i" words. And we certainly see children as victims. But above all, we see children as dependent upon adult nurturance and protection.

The question is, do these representations matter? And if so, how? To whom?

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[77] Advertising can be used as an umbrella term under which both social marketing messages and public service announcements fall. As such, when both categories are being discussed together, they may be referred to as advertising.

[78] See appendix B for a detailed look at the selection process for the PSAs and SMMs examined within this chapter.

Young children are frequently used to appeal to adults in advertisements that call for social or environmental action, perhaps because mental link between the child and nature have already been established (see "Introduction").[79] For a child-based appeal to be effective, however, representations of children must agree with adults' existing mental frames for children and childhood. In many PSAs and SMMs featuring children, this means framing the child as innocent, naive, and vulnerable. And while it is true that climate change messaging occasionally includes children more directly—for example, by allowing them to speak directly to the adult audience— their messages must be performed in ways that adhere to these same frames of children as cute, naïve, victimized, and in need of adult protection. To show a true display of defiance against adult expectations could mean an increased risk of message rejection.

In this chapter, I endeavored to find out how powerful players on both sides of the climate change debate chose to frame children's role within the larger climate change struggle. As media scholar Emiljano Kaziaj states, "how…media think of and represent children can play a crucial role in shaping our perceptions of them and their positioning in society" (Kaziaj 426). In an analysis of eighty-one for-profit and nonprofit public service announcements and social marketing messages, I demonstrate how various SMM and PSA frames relegate children to the frustrating role of empowered—yet helpless—victim. While nonprofit and for-profit organizations attempt to use children with vastly different aims, most organizations within this study employ frames of children in similar ways. I also argue that since these representations of children, childhood, and the child's role within the larger climate change struggle are seen by both child and adult viewers—in magazines, on television, and online—they may perpetuate views that impact

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[79] It is perhaps important to note that by "young children," I generally mean children below the age of twelve. As covered more extensively in the introduction to this project, teenagers are more likely to be framed as rebellious or even criminal

both adults' continued restrictions on child participation, and how children conceive of their own roles in social action. Finally, I argue that—especially in a time when many children grow up with[80] wide access to information and ability to participate via web 2.0—it would be wise to allow children to participate more freely in the exchange of information and ideas with adults.

ADVERTISING TRENDS
Children and Advertising

Vast amounts of research have been devoted to both the effects of advertising on children and children's ability to differentiate reality from persuasive sales pitches. However, the child's role in the advertising world is not limited to that of an audience member (nor did my searches yield many climate-related ads that primarily targeted children). Children are regularly featured in social marketing messages, and are often used to appeal to adult consumers (Charry et al. 244; Gilliam 2; Kaziaj; O'Dell 383; Paek et al. 534). This is not to say that children are allowed to express themselves or choose how they are represented within advertising; as noted by Kaziaj, "children have suffered the indignity of being unable to represent themselves as they would want to be seen or, indeed, of even considering how they might want to be seen" (426; see also Holland). These representations may have to do with the circular relationship of influence between adults' mental frames of childhood and media-makers' message frames of childhood. We are persuaded by message frames that agree with our own mental frames, and in turn, our mental frames guide the kinds of media that we produce. Unfortunately, our mental frames of children are somewhat limited, and thus, representations of children in advertising are some-

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[80] This is not to say that all children born in the digital age will be tech savvy or even have access to technology; rather, children born in this time may have a greater likelihood than the previous generation of mastering technology early.

what limited, most frequently focusing on the imperiled child or the problem child[81] (Entman

"Fractured Paradigm" 52-3; Gilliam 3; Gilliam and Bales 3).

According to Kaziaj, the adult-controlled media consistently represents children in such

limited roles, with adults speaking for children and representing children as they see fit (427).

These representations largely reflect adults' common frames of children and childhood. Accord-

ing to Kaziaj, "When children are represented as victims or objects of emotional appeal…media

labels them as minor, unprotected and dependent, which points to power relations between

children and adults" (438). In his research, Kaziaj refers to the "adult gaze," which references

media representations of children as seen from the adult perspective (428). Media representa-

tions of children, according to Kaziaj, frequently include adult voices, adult narratives that reaf-

firm children's vulnerable status, and high-angle camera shots that reinforce adult perspectives of

children (428). Kaziaj's adult gaze seems to be alive and well in both climate change PSAs and

energy SMMs, though little to no research has been conducted on the framing of children and

childhood within climate-related advertising.

Trends in the Current Study

Table 1: Trends in Selected Advertisements

Category	Sub-category	For-Profit (40)	Non-Profit (41)
Audience*	Adult audience	**34 (85%)**	**39 (95%)**
	Child audience	12 (30%)	8 (20%)
Gain/Loss Frames	Gain Frame	**31 (78%)**	5 (12%)
	Loss Frame	0 (0%)	**21 (51%)**

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[81] See the "Introduction" to this project for definitions of these categories. To these categories, we also occasionally add youth as the future (futurity) and youth as social agents.

Table 1: Trends in Selected Advertisements

	Neutral/Mixed	9 (23%)	15 (37%)
Problem Definition	No environmental problem identified	**35 (87.5%)**	1 (2%)
	At least an allusion to environmental problem	5 (12.5%)	**40 (98%)**
Causal Interpretation	Blame absent	**37 (92.5%)**	14 (34%)
	At least an allusion to blame	3 (7.5%)	**26 (63%)**
Moral Evaluation*	Moral judgment absent	7 (17.5%)	12 (29%)
	Positive moral judgments	**32 (80%)**	8 (20%)
	Negative moral judgments	1 (2.5%)	**26 (63%)**
Treatment Recommendation	Solution absent	0 (0%)	4 (10%)
	At least an allusion to solution(s)	**40 (100%)**	37 (90%)
Representation of Children*	Children as empowered	11 (28%)	12 (29%)
	Children as the future	**25 (63%)**	3 (7%)
	Children as nurtured	21 (53%)	9 (22%)
	Children as victims	5 (12.5%)	**33 (80%)**
* = category contains some overlapping elements			

The analysis of these advertisements demonstrated clear trends in the framing of children, childhood, and climate change. On the whole, it seemed that fossil fuel companies were more likely to focus on positive gain frames, which avoided environmental language and instead addressed non-profit attacks through frames of fossil fuel companies as nurturing parental figures that provide for the world's future leaders. Nonprofit advertisements, on the other hand, were more likely to use negative loss frames and depictions of children as the victims of climate change (see table 1 below).

**CASE STUDY 1: Greenpeace vs. the Arctic Invasion
(Greenpeace International, 2007-2014)**

Table 2: Dominant Campaign Framing
Elements, Greenpeace

Problem	Identified, but not explained
Causes	Fossil fuel industry and/or government
Moral Judgment	Negative
Solutions	Consistent low-level solutions (visit website, sign petitions, etc.)

Greenpeace—an environmental organization established in 1971—is known for its controversial PSAs, which tend to draw in thousands of viewers on YouTube, many of whom are directly opposed to Greenpeace's goals. Greenpeace is a well-recognized force for environmental action, as is denoted by its large body of followers.[82] As stated on their website, one core mission of Greenpeace is to use "creative communication to expose global environmental problems and promote solutions that are essential to a green and peaceful future" (Greenpeace US).

The organization's approach to creative communication often strikes a nerve with viewers, and few Greenpeace PSAs inspire so much controversy as those that evoke—and threaten—frames of childhood. Like most examined climate change PSAs (what I will call CCPSAs), Greenpeace's Arctic PSAs primarily use a negative tone, loss frames, and a morality issue frame that centers on children as victimized by climate change. Greenpeace PSAs use the degradation of childhood as a stand-in for environmental degradation, while largely sidestepping in-depth problem definitions or detailed solutions. Ultimately, such campaigns use frames of childhood

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[82] This includes over 121,000 followers on YouTube, and over 1.6 million on Twitter.

without truly including children; rather, they tend to disturb or threaten many adult viewers, and still manage to perpetuate the perceptions that limit children's participation in climate change discourse and action.

One example of Greenpeace's controversial use of symbols of childhood can be seen in a 2014 PSA featuring frolicking Lego figurines who are drowned in an Arctic Shell oil spill. The commercial was viewed by nearly 8,000,000 Youtube viewers (see fig. 9).[83] Many of the nearly 14,000 resulting forum comments expressed disgust over the destruction of a classic children's toy—which symbolizes a child's playful innocence—to make a point.

This PSA is part of Greenpeace's larger effort to "Save the Arctic," which is composed primarily of two PSA campaigns: "Lego Block Shell," and "Save Santa's Home." Both campaigns feature children or symbols of childhood, and both aim to address the effects of climate change and drilling in the Arctic. The "Lego Block Shell" campaign in particular aims to raise awareness about Shell's ambitions to drill in the Arctic, a location that only became a viable drilling option with the melting of Arctic ice. Greenpeace argues that efforts to drill in the Arctic would not only endanger delicate ecosystems and remote villages, but also release emissions from previously unreachable fossil fuel reserves, thus further accelerating climate change, the melting of Arctic ice, and sea level rise (Polisano; Trimble).

 Rather than making this argument with logic-based appeals or by explaining the prob-lem of climate change, Greenpeace opted for a much more provocative path to raising public awareness in its "Lego Block Shell" PSAs. First, Greenpeace made the controversial decision to attack Lego for choosing to carry Shell-branded play sets (see fig. 10), rather than targeting Shell directly for its threats to the environment. As one Greenpeace Arctic campaigner stated, "We

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83 "Lego Blocks Shell" ad: www.youtube.com/watch (Greenpeace).

felt that Lego forfeited its responsibility to children by allowing Shell to wheedle its way into

playtime and normalise its brand for the next generation" (Polisano). This choice resulted in chal-

lenges from multiple news outlets that questioned what seemed to some like an unprovoked

attack on a beloved toy company. Greenpeace's controversial decision to focus on children's toys

and threats to childhood is strategic,[84] since controversial messages are seen by advertisers as a

likely way to gain the public's attention in a crowded world of advertising (Charry and Demoulin

241; Charry et al. 244; Hackley and Kitchen; Hastings et al. 962). However, this approach is also

risky, since "messages that are perceived as controversial by the public may trigger reactance

and hence be less effective" (Charry et al. 244). Despite the risks of using controversial represen-

tations of childhood, Greenpeace aimed for maximum shock appeal by degrading children's toys

and cherished children's heroes.

The evocation of children's culture is a tool used in many of Greenpeace's Arctic-focused

PSAs, and—in addition to being provocative—it allows the organization to address environmen-

tal issues without actually using overt environmental references. Since environmental buzzwords

are likely to evoke anti-environmental frames in much of the population (especially in conserva-

tives), some experts recommend value-based appeals rather than logic-based appeals that are

full of facts and buzzwords (Ahern et al. 228; Lakoff 79). As stated by Stanford climate change

communications scholar, Susanne C. Moser, "The very phrase 'climate change' or 'global warm-

ing' may serve as a trigger for people, and they won't hear anything else after that" (qtd. in

Campbell).

Instead of using buzzwords that could evoke counteractive frames, Greenpeace chooses

to evoke frames of something cherished by the majority of viewers: childhood. This study

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[84] See cited articles by Corcoran, Child, Nudd, Polisano, Skapinker and Tamblyn. Many others can be found through an online search for "Greenpeace Lego Shell."

demonstrates that, while for-profit organizations were more likely to focus on positive aspects of the childhood frame (like adults' nurturance of the innocent child or children as the future), Greenpeace and other nonprofits were far more likely to evoke images of the victimized or imperiled child. In many of its ads, Greenpeace uses symbols of childhood innocence and vulnerability as a stand-in for the environment. Since mental links between children and nature were established long ago and have been reinforced through much of American history,[85] such a connection is easy to make. Through the perversion of symbols of childhood, they attempt to create a sense of audience unease or even outrage, which can then be more easily connected to unease about climate degradation. And—if you remember Lakoff's tax relief example—the evocation of established mental frames (especially those connected to personal experience and values) are a powerful way to establish new mental connections (1-2; see framing explanation in "Introduction").

Let's take the tagline for the "Lego Blocks Shell" campaign as an example. In multiple video and print PSAs, Greenpeace proclaims that "Shell is polluting our kids' imaginations." The reasoning behind this tagline is Greenpeace's complaint that Lego's Shell play sets promote a pro-fossil fuel message to children. The tagline says much more, however. For many adults, the word "imagination" calls up a frame of childhood wonder, creativity, learning and play. The word "pollution" populates the mind with images of dirtiness, toxicity, and desperate gasps for clean air. Viewers are used to the word "pollution" when paired with other environmental language. When paired with the concept of a child's imagination, however, viewers may be left with the image of a dirty, tarnished former world of wonder, one in which the innocent child cannot thrive. It is an image that is bound to garner an emotional, albeit mixed, response.

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[85] Please see the "Introduction" of this text for more information.

Perhaps an even more controversial example of this framing occurs in Greenpeace UK's campaign to "Save Santa's Home." While this campaign includes multiple PSAs, none received quite as much attention as a commercial featuring famed British actor Jim Carter of BBC's Downton Abbey. In this commercial, Carter plays a desperate and downtrodden Santa Claus, who appears before the camera looking disheveled in his dirty red suit (see fig. 11).[86] Instead of standing before a cheerful winter wonderland bedecked with Christmas lights and candy canes, Carter hunches in a dreary, windowless cellar, with fluorescent lights flickering overhead. This PSA is nothing less than Santa's cry for help, addressed to the children of the world. Carter proceeds to inform children that his home in the North Pole is melting, that his pleas to world leaders have been "met with indifference," and that—without the help of the world's children —"there may be no alternative but to cancel Christmas."[87] Mr. Claus does not elaborate on the cause of his home's destruction, though his continued narrative on savesantashome.org identifies both global warming and arctic drilling.[88]

Like the "Lego Block Shell" commercial, this PSA uses the frame of childhood as environment in order to inspire a strong emotional reaction without directly referring to the environment. Here, however, Santa Claus and Christmas—rather than a children's toy—stand-in for childhood. While Santa makes the audience aware of impacts like melting snow and a "fast disappearing" home, none of the typical climate change buzzwords can be found in the commercial. Santa Claus does not bemoan the onset of climate change or global warming, nor does he

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[86] Greenpeace's Santa ad: www.youtube.com/watch (Greenpeace UK "Santa's Upload").
Other examples from "Save Santa's Home" campaign:
- www.youtube.com/watch (Greenpeace UK "Santa's Helpers")
- www.youtube.com/watch (Greenpeace UK "Santa's Elves")

[87] See appendix C for a full transcript of this advertisement.

[88] Although this website has since been removed, selected screenshots of the site can be found in fig. 12.

whine about greenhouse gases or even desperate polar bears. What he does say, however, is that the disappearance of his home in the Arctic will spell the end of the one holiday widely cherished by adults as a symbol of childhood innocence, playfulness and joy (not to mention consumerism).

Although social conceptions of Christmas have changed throughout history, it could be argued that the current western conception of Christmas is largely focused on the child's sense of wonder, magic, and playful innocence. Indeed, the massive spike in children's toy sales each December serves as a testament to the perceived importance of Santa Claus and the child's right to play (NPD Group). Thus, this commercial garners attention by perverting the childhood inno-cence that many viewers take for granted as an absolute truth. By suggesting that Santa is in imminent danger and Christmas will be canceled, Greenpeace punches a hole in the myth of innocent childhood as guaranteed and unchanging. Thus, it is suggested that childhood is most threatened by climate change, rather than a few polar bears that exist far beyond the viewer's experience. And while the destruction of the Arctic may have limited emotional impact, the de-struction of childhood is likely to leave many viewers feeling downright disturbed.

Some clues about why this is so disturbing might be found in the genre of horror, which has been perverting symbols of childhood for years. Horror films regularly employ wicked repre-sentations of children's culture in demonic toy series like Puppet Masters, (1989-2010), Dolly Deadly (2016-17), and Child's Play (1988-2017),[89] as well as a long list of films featuring Santa's foray into murder.[90] Media scholar Dominic W. Lennard argues that symbols of children's cul-ture—like children's toys and heroes like Santa—represent "socializing ideologies urged upon

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[89] See more by visiting this link: www.imdb.com/list (Gonzothefacey).

[90] For example, Christmas Evil (1980), To All a Goodnight (1980), Silent Night, Deadly Night 1-5 (1984-1991), Santa Claws (1996), Santa's Slay (2005), Silent Night (2012), All Through the House (2015), and Krampus (2015).

the child by the adult…through sanctioned play, as well as the safety and nostalgia of child-

hood" (135). Adults do not protect the sacred space of childhood for the sake of children alone,

Lennard says. Rather, childhood—and by extension, children's culture—is also a "nostalgic, ro-

manticized" space for adults (134). Therefore, the perversion of "emotionally potent childhood

memorabilia" reminds adults "how easily comfortable ideological contrivances might be ren-

dered empty…convey[ing] a deromanticized view of childhood and…the suggestion of a world

in which there is no possibility of nostalgic pleasure" (135). These representations are also dis-

turbing to adults because they symbolize uneasiness about adult-child power dynamics, and

fears of children's revolt against adult power (134). Perversions of childhood and children's cul-

ture are enjoyable within the genre of horror, where much of the thrill lies in feeling unsettled.

But the fact that such representations of children's culture rattle us so deeply is very telling. Is it

possible that Greenpeace's arctic PSAs are disturbing to viewers because they threaten adults'

feelings of nostalgic safety or their power over children?

      If adults' self-awareness runs this deep, they do not admit as much in their responses to

Carter's Greenpeace PSA. When viewers retaliate against Greenpeace's depiction of an endan-

gered Christmas, they seem to take a protectionist stance by opposing Greenpeace's efforts to

"scare children." However, a review of over 1,000 forum comments indicates that it is Santa's

choice to speak over [or under?] adults' heads and address a child audience that may offend

viewers the most. Most selected CCAAs warn adults of the myriad ways climate change will vic-

timize children. This PSA, however, seems to implore children to help solve problems, since—as

Santa so mournfully points out—adults aren't listening. Santa even goes so far as to infantilize

adults by placing them on the naughty list, and adults do not seem to like such threats to either adult power or childhood.[91]

83% of the comments that mentioned children specifically showed an overall disapproval of the PSA due to perceived threats to childhood innocence, child scaring, or even what some called outright child-abuse.[92] For example, the content of the following comment was quite common: "You people are disgusting! Can't you just let children be children and stop trying to indoctrinate them into the global warming LIE? Can't you just let their innocence remain intact?" Although this commenter uses capital letters to emphasize his disgust at the idea of indoctrinating children into a perceived lie, it isn't the lie that offends. After all, the myth of Santa Claus is little more than a lie that adult society agrees to perpetuate on a massive scale. However, the myth of Santa Claus serves to uphold the façade of the carefree childhood space. The supposed myth of climate change that is presented by Carter in this Greenpeace PSA, however, is one that tears the carefree space of childhood to shreds.

Panic over advertising to children is nothing new. Adults have long feared malevolent advertisers' attempts to manipulate hapless children (Rozendaal et al. 329) It isn't that adults generally disapprove of child-related loss frames. In fact, the vulnerability of children is commonly used to appeal to adults in advertising of all kinds, and studies show the approach to be effective. One study demonstrates that while adults generally approve of loss frames (deemed "threat appeals" in advertising) in social marketing, that approval grows even stronger when children's issues are addressed (Charry et al. 252). Adults also approve of threat appeals used in social

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[91] Though I am unable to verify that these comments were made by adults, the adultist stance of the examined comments does suggest an adult author. Furthermore, YouTube's age restriction for posters is thirteen (as if kids can't get around that one).

[92] While many of these comments were either debates about climate change or insults directed at fellow commenters, roughly 14% of comments mentioned children, kids, or childhood specifically.

marketing aimed at teenagers, who are more likely to be labeled by society "the troubled

child" (244; Gilliam 3; Gilliam and Bales 3). However, this support drops of substantially when

social marketing targets younger children (Cho and Boster 428; Treise et al. 59).

This may have something to do with the gatekeeping attempts of adults. When loss

frames pertaining to children are aimed at adults, adult viewers are able to maintain the illusion

that—while their children may be vulnerable to outside threats—they can still shield their chil-

dren from the knowledge of those potential threats. This allows adults to feel that they are

guarding children's innocence in spite of danger. By speaking directly to a child audience, how-

ever, Greenpeace's Santa PSA tears down the illusion of a safe barrier between children and the

knowledge of a dangerous world—one in which magic and fantasies are threatened.

Not all commenters deemed Greenpeace's Santa PSA a violation of childhood, however.

Nearly 17% of respondents who mentioned children or childhood actually approved of the PSA.

However, nearly half of those commenters made it clear that they did not feel that the PSA was

intended—or appropriate—for children. For instance, one commenter said, "No of course the ad

is not shown to children - it is for the adults to stop being ostriches and to get active to stop

corporations from ruining every bit of ecological life there is and killing all of us ultimately - in-

cluding children - so much for letting them be children then, huh?" Comments like this one

demonstrate that threats to symbols of childhood innocence are only acceptable as a message

to help adults get their act together, and not as a means of getting children on board with a

larger cause. Despite frequently bitter disagreements about the PSA's merit, most commenters

seemed to agree that the message was unfit for children, and few commenters expressed per-

ceptions of children as capable of handling such a message. The few exceptions to this view-

point suggested that—since children will be affected by climate change—they have a right to be

educated on the issue and included in discussions. These commenters, however, were greatly

outnumbered, and some were even criticized for allowing their children access to Youtube in the

first place.

If Greenpeace's PSA was not actually meant for the eyes of children, then why does Santa address children at all? Perhaps because such a perversion of the symbols of childhood innocence gains widespread attention from individuals on both sides of the issue, and it [hopes to] form mental links between threats to firmly-rooted frames of childhood and environmental degradation. If Greenpeace's intention was not to address children as potential influencers of adult behavior—but to gain adult attention by pretending to do so—then this method ultimately caters to adults' perceptions of children as innocent, powerless victims.

The PSA's companion website (savesantashome.org) initially seems to support the view that the PSA wasn't meant for children, since it drops the pretense of talking directly to them. For example, Greenpeace asks site-users to provide contact information so that "Santa can make sure that you are taken off his naughty list" (Greenpeace UK). The commercial suggests that adults have been placed on Santa's naughty list for failing to act on climate change. Thus, the website's use of the second-person "you" in reference to Santa's naughty list indicates that adults are being addressed on the website rather than children. Of course, the choice to address adults on the website may be based on an assumption by Greenpeace that pre-literate children will influence adults to visit the site with them. After all, research suggests that children can effectively use what they've learned about the environment to influence adults' environmental behaviors and attitudes (Damerell et al. 1; Mandel 75). If this is the case, then Carter's PSA may entrust

children with more responsibility for enacting change than any of the others under examination.[93]

Regardless of the intended target audience, however, the way that children are used is still somewhat unsettling. If Greenpeace does mean to address children, then the ideal viewer for this PSA would be the very child who has been kept innocent enough to believe in Santa Claus, and thus worry about Santa's predicament. Such an PSA would be using enforced inno-cence—and the children subject to that enforced innocence—in order to influence adults and reach environmental objectives, all without arming children with ample information about cli-mate change problems or solutions. On the other hand, if Greenpeace actually hopes to gain the attention of adults, then it still does so by using the child.

There is no way to know for sure whether this PSA was meant to target children, nor have I located any responses that children have made to the PSA. And in the end, perhaps the PSA's target audience is of little consequence. After all, the vast majority of the examined CCAAs were oriented to the adult perspective, and most represented children as victims with little recourse other than to plead with adults to defend them against climate change. The very premise of the "Save Santa's Home" campaign (as well as the "Lego Block Shell" campaign) de-pended upon adults' mental frames of childhood, thus perpetuating the child's role as relatively powerless in comparison with adults. More than likely, these messages will alienate children or leave them feeling powerless, rather than empowering them to learn more, take a stance, and make a stand. Based on research that A) highlights kids' abilities to influence adults, and B) re-futes assumptions that kids are purely passive adopters of adult information, it seems that non-

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[93] Greenpeace's trust in children's ability to affect adult behaviors can also be seen in Greenpeace's children's protest, which was connected with the "Lego Blocks Shell" campaign. I did not have the time or space to fit the protest in to my discussion during this draft, but plan to in future research projects. See the following Greenpeace article for more info: www.greenpeace.org.uk/blog.

profits would be wise to make legitimate attempts to include children in climate change discussions—not to use their supposed innocence, but to truly speak to them and with them as individuals with worthwhile perspectives. Indeed, many people trust nonprofits to provide information about pressing social issues and empower people to take action. Therefore, these organizations are uniquely positioned to help elevate youth to a better position for participation. Based on the analysis of current nonprofit CCAAs, however, it seems that the drive to empower children as true participants in climate discourse or action will not come from the nonprofit sector.[94]

CASE STUDY 2: Let's Go Nurture Some Children
(Royal Dutch Shell Energy Company, 2008-2016)

Table 3: Dominant Campaign Framing Elements, Shell

Problem	Environmental problems rarely identified or explained
Causes	Unidentified or inanimate (i.e. pollution as actor, etc.)
Moral Judgment	Positive, self-directed
Solutions	Targeted

The Royal Dutch Shell Oil Company—or Shell Oil as it is commonly known—is one of the world's largest oil companies. According to its website, Shell is "a recognized pioneer in oil and gas exploration…and one of America's leading oil and natural gas producers…" (Shell US). The company is widely recognized around the world, with operations on five continents, and more social media followers than any other oil company under examination (439,000 on Twitter). Shell is also one of the most vilified companies within an already vilified industry, and the company has

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[94] This is not to say that there is no factual information to be found in advertising; advertising frequently caters to people's frames of the world, and as such, advertising will always reflect some version of reality.

a starring role in multiple Greenpeace PSAs. Amongst those campaigns are the aforementioned "Lego Block Shell" PSAs, and an extensive parody of Shell's "Let's Go" campaign (both created by Greenpeace).[95]

Although Shell avoids direct references to climate change in its social marketing messages, climate change is acknowledged on the company website. On that site, Shell states that, "We have recognised the importance of the climate challenge for a long time now" (Shell Global). The site goes on to suggest policies "balancing environmental objectives and economic growth, [and] encouraging a range of solutions that include oil, gas and renewables."[96] Shell's acknowledgement of anthropogenic climate change is—perhaps surprisingly—not uncommon in the fossil fuel industry. In fact, all four of the examined fossil fuel companies have similar statements on their own websites.[97] However, Shell is the only company of these four to come close to acknowledging climate-related complaints against the fossil fuel industry in social marketing, by implementing keywords like "emissions" or "CO2."

Like that of Greenpeace, Shell's framing approach is also deeply rooted in common frames of children and childhood. However, while Greenpeace aims to draw attention toward the fossil fuel industry as a driver of environmental diminishment (and thus, the diminishment of childhood), Shell's goal is to reconfigure the fossil fuel industry as a provider for the world's children, and a protector of the ideals of childhood.

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[95] For more on this spoof, see the following articles:
- www.huffingtonpost.com/2012 (Stenovec).
- www.theguardian.com/environment (The Guardian).
- www.cnn.com/2012 (Nichols).

[96] For more on Shell's climate change policy, visit www.shell.com/sustainability/ (Shell "Climate Change").

[97] For more on other fossil fuel companies' climate change policies, please visit the following links:
- www.bp.com/en/global/corporate/sustainability/ (BP).
- www.chevron.com/corporate-responsibility/climate-change (Chevron "Climate").
- http://corporate.exxonmobil.com/en/current-issues/climate-policy (ExxonMobil).

Many Shell SMMs depend upon mental frames of family or adult-child relationships. In most of its "Let's Go" SMMs, Shell casts itself as a parental figure (or for more traditional viewers, a father figure), who provides for the world's children. In some instances, Shell's language and text suggest a provision of emotional support (love, comfort, encouragement, etc.), and in other cases, provision is more tangible (a "secure energy future," educational funding or opportunities, or even playground equipment). Within this frame, energy is one source of comfort and safety that the corporate parent provides. Additionally, many of the examined Shell SMMs center on particular traits within the common frame of children and childhood: the relationship of nurturing parent and nurtured [often innocent] child. This section will focus on SMMs from Shell's "Let's Go" campaign, which demonstrate how Shell uses these frames of children, childhood, and family to redirect thinking about Shell's role in communities, society, and the environment.

Shell's use of the family frame is clearly visible in one of its "Let's Go" print SMMs. Within this SMM, a child is snuggled into her bed to read a book (see fig. 13). The girl's face is bathed in the soft glow of a nature-themed lamp, which rests on her bedside table beside a carefully-positioned polar bear figurine. Beneath this image is the caption, "Let's keep the lights on when she's your age." As even the electric, tree-like lamp suggests, this SMM's content is a delicate balance between addressing perceived energy needs and fulfilling environmentally-friendlier objectives.

The choice to focus on gain over loss in this SMM couldn't be more different from Greenpeace's approach. While Greenpeace highlights potential blame, moral judgments, and consequences of inaction—with only vague hints at hazy solutions—this SMM focuses almost entirely on desired outcomes, solutions, and positive thinking. This may be because Shell is a company playing defense against an increasingly hostile public, and while loss frames may do a

better job of motivating people to act, gain frames are best at inspiring confidence in the status quo, and maintaining existing brand loyalty. According to multiple sources, consumers' long-term purchase decisions are heavily influenced by their perceptions of a company as either ethical or unethical (Charry et al. 243; Leonidou et al. 397; Singh et al. 541). Shell is interested in keeping people from acting (i.e. taking their business elsewhere). Therefore, they must reassure consumers that the fossil fuel-based system is fine, and that everything will be all right with corporations like Shell at the helm.

In fact, the tactics used in this SMM are essentially a positive spin on Greenpeace's threatened childhood innocence. Rather than showing viewers a future in which this little girl (and others like her) will be deprived of modern comforts like electricity, Shell chooses to demonstrate the simple, energy-infused childhood joys that adults might wish to maintain for their children. The image evokes positive feelings that connect with deeply-rooted notions of what childhood should be; the girl's cozy bed and the warm lamp light represent the general sense of comfort and safety that stem from a nurtured, carefree childhood. The image may even evoke viewers' memories of their own childhoods, being carried away by stories late into the night. Standing next to this little girl's bed, the lamp also brings about the feelings of security attached to childhood night lights, which illuminate shadows and chase away fears of monsters and other lurking dangers.

Even the SMM's tagline evokes feelings of warmth and safety. Shell could have easily written the tagline to say, "let's keep the electricity on for her when she's your age." However, the phrase, "keep the lights on for her"[98] is rather common, and it is likely to evoke a particular frame in many viewers. The phrase conjures images of returning to the warmth of home, and

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[98] This phrase is also used in other commercials, like Motel 6's "we'll keep the lights on for you."

finding that a porch light has been left on to guide our way. This mental image reminds viewers

of how it feels to have someone who loves us waiting at home for our safe return. Shell attempts

to connect the warmth of this frame to its brand image.

There are other implications of using this phrase, however. The statement, "Let's keep

the lights on when she's your age" is a positive spin on the implied possibility of another, darker

future—one in which adults could fail to keep the lights on for this little girl. Thus, the phrase

subtly, yet undoubtedly, evokes the possibility of an insecure energy future. If such a future

weren't a possibility in Shell's view, the company would see no need to suggest action. Further,

the forecast of substantial population growth—while attempting to maintain a positive tone—

brings about the image of a future in which even the well-off could be fighting for resources in

an overly-crowded world.[99]

Imagine an alternate phrasing for this SMM, which frames this child's energy needs in a

different way. In this altered version of the SMM, the viewer would see an image of a child who is

deprived of a bedtime story due to lack of power. The caption for this SMM might read, "What if

we can't keep the lights on for her when she's your age?" When presented using a loss frame,

the SMM becomes a clear threat against what might be seen as a child's right for electricity.

Worse yet, suppose that the SMM brought such a threat to the attention of children, by suggest-

ing that "if adults fail to find more energy sources, you could be left in the dark." One can only

imagine the public reactions to such a message.

This example demonstrates how—while some of the implications are the same—this

Shell SMM does not provoke the same ire as the "Save Santa's Home" PSA. Again, the main dif-

ference between a gain frame and a loss frame is an emphasis on either the positive or the nega-

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[99] By likening population growth to a forecast, Shell also suggests that factors like population growth (and perhaps fossil fuel use?) are as beyond human control as the weather.

tive, though both are merely two sides of the same coin. It is the phrasing—and perhaps the audience—that makes all the difference. However cheerfully the issue is broached, this discussion subtly raises the potential reality of children facing daily life in literal darkness. The focus on positive outcomes and solutions, however, diffuses any feelings of discomfort that come with a potential challenge to idealized childhood. The first portion of the SMM reminds viewers of how good they have it before skirting around the image of future deprivation, with only hints of potentially negative language, like the use of the vivid phrase, "power-hungry." All of this primes the viewer to accept Shell and its efforts to stave off an energy-starved future using "every possible energy source" (which, according to Shell's climate policy plan, largely involves the continued use of fossil fuels).

While the SMM does not mention climate change specifically, it does attempt to address environmental concerns on some level by introducing the company's efforts to explore "a broad mix of energies" (Shell).[100] It is important that Shell does not mention climate change or global warming by name, since those words evoke the frames of environmentalists and raise particular ideas in people's minds. According to Lakoff, "negating a frame activate[s] that frame . . . When you argue against someone on the other side using their language and their frames, you are activating their frames, strengthening their frames in those who hear you, and undermining your own views." ("Elephant" 1). Lakoff's trademark example of frame negation is to suggest that readers not think of an elephant, which highlights our brains' inevitable reference to our own frames of elephants—floppy ears, trunks, and the like—when the word "elephant" is used (1). His point is is to illustrate a fundamental principle of framing, which is that "When you are arguing against the other side: Do not use their language. Their language picks out a frame—and it

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[100] These energies include ethanol (which emits debatably comparable amounts of CO_2) and natural gas (also a fossil fuel attributed with substantial CO_2 emissions).

won't be the frame you want" (3). This may explain why Shell is unwilling to address the issue of

climate change head-on in its advertising, despite their acknowledgement of the "climate chal-

lenge" in their all-but-buried policy stance online. To evoke the frame of climate change in ad-

vertising would be to legitimize the environmentalist's worldview, and ultimately undermine the

industry's efforts to suggest that the world is better off with the continued widespread use of

fossil fuel energy. Instead, Shell chooses to focus on children's needs, even connecting the desire

for energy with hunger (and thus, food, which is something that children actually need for sur-

vival).

The framing choices made in this Shell SMM are even more apparent when they are in-

verted, as can be seen in Greenpeace's parody of the SMM (see fig. 14). Although Greenpeace

chose to maintain the visual choices made by Shell, this version of the SMM uses a loss frame to

highlight what Greenpeace perceives as the less-savory aspects of Shell's plans to utilize "every

possible energy source." While Shell's SMM directs the viewer's attention toward the desired

outcome of keeping the lights on for future generations, the parody shifts the viewer's attention

to the consequences of using "every possible energy source." In order to ensure bedtime stories

for future generations, Greenpeace suggests, Shell is willing to "endanger us all" by drilling in

the Arctic. According to the associated website, "this oil puts our . . . families in grave danger as

our planet simply can't take new oil" (Greenpeace).[101]

Despite Greenpeace's multiple attempts to parody Shell's "Let's Go" campaign, Shell

stuck with the campaign's slogan and general approach for several years. Many of the cam-

paign's other print SMMs and commercials use tactics so similar that they may not warrant in-

depth discussion in the space of this chapter. Three of the examined "Let's Go" commercials

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[101] www.savethearctic.org/en-US/peoplevsarcticoil (Greenpeace "Choose People").

highlight ways in which Shell's provision of energy help children to learn, grow, and successfully navigate their daily lives. One child is shown using an electric pencil sharpener while completing her homework. Another develops his talents playing the electric guitar, and a third child gleefully shapes a clay piggy to be fired in a kiln. Each of these ads evokes a family frame, in which safe, happy children go about their daily lives with no awareness of what Shell must do as an energy provider to make such moments possible. Through this self-proclaimed role as provider, Shell establishes itself as a parental figure in relation to the world's children. Unlike many CCAAs, which depict children as either victims or agents in the fight against climate change, Shell depicts children as nurtured innocents who do have—and will continue to have—access to a carefree childhood of learning, modern comfort, play, and protection.

This depiction leaves little room for climate change discussion, let alone space for children to participate in discussions about their needs for energy or anything else. In fact, none of the "Let's Go" SMMs give children a voice, scripted or otherwise. These children play and learn happily in silence. And according to previous research, this silent, decorative child is all-too-common in the media (Carter et al.; Kaziaj 10, 13; Ponte and Aroldi). Perhaps this is the very appeal of the campaign; it reassures adult viewers that the ideals of childhood are safe, that children's lives can and will continue as always, and that Shell will take care of any innovations that need to be made. The "Let's Go" campaign requires nothing of children or parents except the release of worries and responsibilities in favor of allowing Shell to take the reins and provide for children.

CASE STUDY 3: Fueling Schools for the Future
(Chevron Corporation, 2015-17)

Table 4: Dominant Campaign
Framing Elements, Chevron

Problem	Environmental problems never explicitly identified
Causes	No sources of blame identified
Moral Judgment	Frequent positive moral judgments (self-directed or directed toward educators)
Solutions	Targeted (education-based)

As the second-largest American oil and gas company, Chevron is a common household name in the US. Like the other oil and gas companies under examination, Chevron acknowledges the role of fossil fuels in climate change, and claims to be working toward "solutions that achieve environmental objectives without undermining economic growth and our aspirations for a better quality of life for all" (Chevron). Also like many large oil and gas companies, however, Chevron has been criticized for paying lip service to environmentalists and the public in its advertising, without backing up their words in practice.[102]

While most examined energy SMMs share Shell's tendency to cast fossil fuel companies as providers, some go beyond representations of children as nurtured innocents. In fact, 63% of energy SMMs depict children as the creative, open-minded, even innovative leaders…of tomorrow. This representation of children as the future has been deemed "futurity" by some scholars, or adults' tendency to focus on the adults that children will someday become, rather than valuing who children are in the present (James and James 57; Jenks). The concept of futurity resonates deeply with many adults and society in general, since a younger generation will always be needed to take the reins from the older generation. Three out of four of the examined fossil fuel companies (Chevron, Shell, and Exxon Mobil) produce SMMs that focus on children's futuri-

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[102] For some entertaining examples, please visit the following links:
- "Chevron Thinks We're Stupid": www.funnyordie.com/videos/b306db1443/chevron-thinks-we-re-stupid
- "The Anatomy of Greenwash": www.funnyordie.com/videos/da1db3a886/anatomy-of-a-greenwash?playlist=334652

ty, usually by demonstrating the ways that these companies support children's educational development and encourage STEM careers.

One example of futurity in fossil fuel SMMs can be found in Chevron's "Fuel Your School" campaign, which promotes Chevron's educational program of the same name. According to the program website, when consumers purchase Chevron gasoline in states where Chevron has operations, a portion of the profits will go to "fund eligible classroom projects" (Chevron).[103] This campaign includes five commercials featuring elementary-age children, who tell viewers what they want to be when they grow up, and how their teachers inspired those decisions. Captions at the bottom of the screen explain how Chevron makes such inspirational education possible.

The visual presentation of children within these commercials blends perceptions of children's present innocence with their supposed goals as future members of the work force, thus evoking the frame of children as the future. For instance, in one SMM, a girl in an oversized doctor's coat stands before a cartoon hospital background, holding a stethoscope in one hand and a cartoon x-ray in the other (see fig. 15; see a full transcript in appendix D).[104] This girl proclaims that she wants to be a doctor because of what she learned about the body in school. Doctors are some of the most respected professionals in adult society, and the word "doctor" comes with its own set of frames, including some of the very items depicted in this SMM (stethoscope,

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[103] Donated materials include technology, books, and supplies. The information on the "Fuel Your School" website is limited, and criteria for eligible projects is not included. Please view this website at the following link: www.fuelyourschool.com (Chevron "Fill Up").

[104] Chevron "Fuel Your School" commercials:
- www.youtube.com/watch?v=2kERyBZbWXQ&index=5&list=PL30E377A0641EE655 (Chevron "Inspire").
- www.youtube.com/watch?v=ffYP2h3jmHc&list=PL30E377A0641EE655&index=2 (Chevron "Dive In").
- www.youtube.com/watch?v=L2q7s2MR_6o&index=3&list=PL30E377A0641EE655 (Chevron "Blast Off").
- www.youtube.com/watch?v=PR_RDLDehxI&index=4&list=PL30E377A0641EE655 (Chevron "Teachers").
- www.youtube.com/watch?v=2kERyBZbWXQ&list=PL30E377A0641EE655&index=5 (Chevron "Innovators").

coat, x-ray, waiting room, etc.). These items do not traditionally connect with the frame of the

innocent child. However, a few visual decisions bridge the worlds of respected adult professional

with that of the innocent child. First, Chevron swaps a real hospital and x-ray for cartoon repre-

sentations; since cartoons most often target children, these representations are symbolic of chil-

dren and childhood. Furthermore, the choice to use an oversized doctor's coat rather than a fit-

ted one evokes images of a child playing dress-up or playing doctor to her stuffed animals at

home.

In this way, the commercials also identify a child's play and imagination as a pathway to

learning and becoming a contributing member of society. This connection between imagination,

learning, and future careers is furthered through the use of vivid action words. For instance, the

commercial featuring a future astronaut asks viewers to "help launch student success." Another

focused on a little marine biologist suggests viewers "dive in to help support education." Here,

verbs like "launch" and "dive" are paired with imaginative illustrations that connect with percep-

tions of children as energetic and imaginative. The use of such concrete language—along with

the placement of kids in cartoon-representations of professions—helps to support the overall

frame of child futurity.

However, as many frame analysts suggest, what is missing from the message is just as

important as what is present (Gilliam 3; Entman "Fractured Paradigm"; Lakoff "Elephant"). For

every solution there must be a problem. For Chevron and other fossil fuel companies, the prob-

lem may be that much of the public perceives the fossil fuel industry as ambivalent toward the

well-being of children and people in general. This sentiment is growing as public acceptance of

anthropogenic climate change increases (Johnston). Even fossil fuel executives openly acknowl-

edge the largely negative stance of the public. Shell's CEO laments the disappearance of public

trust (Johnston), BP CEO Robert Dudley acknowledges the industry's "bad name," and Chevron

CEO John Watson complains of the public's "apocalyptic predictions and vilification" of the in-

dustry (Minter). Chevron's "Fuel Your School" campaign—like other companies' campaigns—

seems to combat perceptions of the industry as heartless by focusing on gain frames that

demonstrate concern for what are seen as society's most vulnerable members.

One trouble with such campaigns is that—while they may support children in ways that

are safe or at least benign for the fossil fuel industry (by promoting education, for instance)—

they do not address the concerns of those children and families who face physical threats from

the fossil fuel industry.[105] Furthermore, they use children to redirect attention away from those

valid concerns. One such concern is children's health. Chevron is currently involved in a lawsuit

with Ecuadorian communities over the company's contamination of local drinking water, which

has reportedly made many children and families sick (Lewis).[106]

Campaigns like "Fuel Your School" redirect viewers' attention away from current threats

to children's health, and toward the ways that Chevron chooses to support children's futures.

When the children featured in these SMMs state that, "I want to be _____," attention is directed

away from who children are and what is important to them in the present. The focus is instead

placed on the child as becoming ("future innovators"), rather than being. Kaziaj points out that

this tactic is one commonly used by politicians during election years, since it allows them "to

shift the attention from actual problems and to avoid addressing fundamental issues that chil-

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[105] Importantly, these campaigns also prioritize the needs and concerns of privileged children and families (ie largely white, middle-class, and American) over marginalized children and families (often racial minorities with lower income, and largely located outside of the US). These marginalized groups are much more likely to experience environmentally hazardous living conditions, which has necessitated the creation of the term environmental racism, or "the process that leads to the disproportionate siting of hazardous waste facilities in communities of color" (Checker 13).

[106] The company is also facing the possibility of a lawsuit over their alleged funding of "climate disinformation" and their role in elevated CO_2 emissions (Johnston).

dren are facing" (6). Scholars Morrow and Mayal also note the tendency for societies "to value

children in terms of future human capital (becoming) over the present (being)" (219). This focus

on the future is useful for fossil fuel companies because it avoids discussions about what the in-

dustry is doing to harm children in the present. But as Kaziaj points out, "Considering children as

"the future" has implications on their present situation" (6).

One such implication is that neither what children think or care about in the present—

nor what they want in the future—seems to matter (Carter et al.; Ponte and Aroldi). For instance,

my attention was drawn to one girl who was interviewed about program materials for the "Fuel

the Future" commercial. In one clipped statement, the girl says that "we had to make these

buildings out of blocks." The girl's words are sandwiched between testimonies of teachers who

gush about the provided program materials and shots of children apparently having fun (while

learning!). But her focus on what the students had to do is a subtle reminder that even when

children are empowered or encouraged to reach new heights, they are restricted to the heights

that adults want them to reach, and—at least within this commercial—their words and opinions

will be used however companies want them to be used.

CASE STUDY 4: Children Performing Action
(Various Organizations, 2009-2016)

Table 5: Dominant Campaign Framing
Elements, Various Nonprofit Organizations

Problem	Identified, but not explained
Causes	Limited to allusions
Moral Judgment	Mixed
Solutions	Low-level (join groups, sign petitions, visit websites)

The case studies above largely focus on representations of children as either victims of climate change, nurtured innocents, or "future innovators." Since certain frames of childhood were so common to either non-profit (the imperiled child) or for-profit organizations (the nurtured child), it was easy to categorize the above case studies by organization. Representations of children as social actors in the fight against climate change, however, were often outliers, scattered here and there between organizations. Thus, this last case study focuses on a few of these scattered examples. 29% of non-profit PSAs and 18% of for-profit SMMs included some depiction of children as social actors. It would be difficult to confidently identify child agency in the scripted world of advertising, if, as M.M. Davies defines it, child agency is children's "ability to control the action" (55). There were, however, examples of a limited kind of empowerment in which children were encouraged to do more and take action, as long as their actions stayed within parameters set by adults and were enacted in a way that does not threaten adult-child power dynamics.

While a handful of nonprofit PSAs did give children the opportunity to share their climate concerns on camera, it is difficult to tell how much of those opinions were truly their own. For instance, one entertaining Sierra Club commercial featured children rolling their eyes whilst reading Donald Trump's tweets on climate change.[107] However, I recognized nearly all of the kids featured as the children of Sierra Club staff (identified in two other Sierra Club commercials). This led me to wonder how many of the commercials kids were asked to participate—or even coached—by their parents. Furthermore, the children featured in the commercial offer few statements beyond those written by President Trump. Their perspectives—if offered—are primarily visual in nature (e.g. facial expressions).

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[107] Sierra Club ad: www.youtube.com/watch (Sierra Club Extra).

Other SMMs do allow children to speak to the camera, though these children frequently come off as cute, naive, and vulnerable. In several PSAs (including PSAs by WWF[108] and UNICEF), children face the camera and plead with adults to protect them from climate change. Ads like these are dripping with cuteness, or what might be called performances of cuteness. Such a performance "highlights [children's] innocence and uncorrupted nature, pointing out the pleasure that adults receive when watching them" (Kaziaj 14). One example created by the Ontario Government includes a series of appeals by children who have literally drawn their own solutions to the climate change problem (see fig. 16, as well as a full transcript in appendix E).[109] The commercial opens with a series of brief climate destruction scenes. Next, a girl appears, holding up her handwritten letter to adults. One by one, ten children speak to the adult viewer, sharing their hand-drawn plans for solving climate change. While a few ideas are more realistic—involving solar panels, for instance—most are adorably infeasible (like sunscreen for the earth or a giant fan that cools the planet).

The PSA does contain a few hints that children might be taken seriously, including one boy's breathless explanation of climate change, which shows a better understanding than that of many adults. Once again, however, people are most likely to notice evidence that supports their pre-existing frames (Entman; Lakoff). Thus, it is far more likely that adults will see this PSA and latch onto the testimonies that reinforce their frame of children as delightfully naive. The commercial ends by fortifying these perceptions verbally, with an adult narrator who says, "Let's not leave this for our kids to figure out." This is as if to say, "See what these cute kids come up with? They clearly can't figure this out, so we have to do it for them." Thus, while this PSA includes

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[108] WWF Ad: www.youtube.com/watch (World Wildlife Fund).

[109] OnGov ad: video no longer available. See transcript in appendix E.

children's voices, and even lets them speak to the adult viewer, the ultimate message of the PSA deems children's voices lacking in some way.

This assumption that children are so much less equipped than adults to understand the complexities of climate change doesn't seem to be based on real research. In fact, studies show that a vast number of adults have a very limited understanding of climate change. When Boy #2 in the OnGov commercial states that "It's melting the ice and it's falling into the ocean and then it's melting in the ocean and raising sea levels," he actually demonstrates a better understanding than many adults possess. In one 2013 study, the Frameworks Institute found that many American adults believed that climate change was caused by a hole in the ozone layer (6). Similarly, a 2014 Ipsos Global Trends survey found that 52% of Americans believe climate change is entirely natural. In contrast, more and more schools are mandating that children be educated about climate change (NGSS). Thus, while these students may not be spending class time working on large-scale solutions, it isn't such a stretch to think that kids who have a good understanding of climate change might stand a reasonable chance of devising some valid solutions to climate-related problems. This may be especially true if—rather than laughing at children's ideas, patting them on the head, and declaring them incapable—knowledgeable adults explain the reasons that certain plans are impractical, and then encourage them to go back to the drawing board. For instance, some may have heard of the fourth-grade teacher who regularly expects his students to devise plans for world peace through classroom game play. As John Hunter suggests, children are capable of grappling with the world's problems, if only adults would grant them the space to do so (Hunter).[110] When adults fail to recognize youth contributions or include children's

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[110] For more on this game, please visit the following link: https://worldpeacegame.org/.

input in meaningful ways, they may discourage youth learning and engagement, while also potentially missing out on the significant insight and interesting ideas that youth might provide.

The question is, if children do have the potential to help solve social problems like climate change, then why must they perform cuteness in order engage in social action discourse with adults? Is it possible that—if the cuteness act were dropped—adults would begin to take children more seriously? Presently, it may be these displays of innocence and vulnerability that allow children a seat at the table at all, since a vulnerable child is less threatening to adults. If children were to look into the camera and deliver a sober message berating adults for the mistakes they've made, followed by demands that they fix those mistakes—it may threaten adults' role as "in charge." Such a message would defy the adult viewer's expectations about the adult-child relationship, and again, messages that disagree with viewers' pre-existing frames are usually dismissed by the viewer. Unfortunately, this approach is perhaps too subversive to be used with any regularity, and thus, there are too few examples of it to know whether or not it could be effective. Instead, children are asked to engage in performances of cuteness and appeals to the protection of bigger, stronger, wiser adults, since these are assumed to be the most effective means of reaching the adult audience.

The greatest departure one can hope for amongst this batch of PSAs is greater complexity in the range of child frames evoked. One lonely PSA—created to raise awareness of the 2009 Copenhagen Climate Summit—seems to cover the range of childhood representations. The commercial begins with whipping winds that scatter children from a playground. A girl runs home to see endless coverage of climate change's extreme weather on TV. Later, the girl dreams of nearly being swallowed up by a tsunami (victimization, see fig. 17), and wakes with tears in her eyes and her worried father's attempts to console her (nurturance). It is at this point that the

PSA's message departs from other messages in this study. The girl and her father jump on the

computer and learn about climate change (see fig. 18), and the ways that children have con-

tributed to the climate movement in legitimate ways.[111] The PSA finishes with the little girl creat-

ing and uploading a video that raises awareness of climate change, which results in a slew of

similar messages from children all over the world (see fig. 19). True, this message includes the

victimization and fear of children, but aren't we all afraid of what we don't understand? Unlike

other commercials, this one grants children the capacity to learn about what they fear and fight

back against it, rather than asking children to devise ideas based upon enforced ignorance in

order to delight adults and reinforce their beliefs about children's adorable innocence. It certain-

ly isn't the complexity or agency that children deserve in media representations, but it is a step

beyond the cardboard representations of children in most of the PSAs examined.

CONCLUSION

There were many advertisements included in the initial analysis that deserve more time

and attention, but the patterns of framing in these eighty-one ads were largely consistent, and a

precious few consider the possibility that children may have some ideas of their own about cli-

mate change. As Kaziaj laments, children's "voices are rarely heard, and instead, adults are al-

ways talking for them" (427). The social marketing messages and public service announcements

featured in this chapter demonstrate that, even if for-profit and non-profit organizations disagree

about climate policies and the use of gain or loss frames, they seem to be on the same page

about using frames of children and childhood to persuade viewers.

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111 For an example, see Severn Cullis-Suzuki's address at the Rio Summit in 1992: www.youtube.com/watch (We Canada).

These advertisements show that the framing of an issue—and the representation of those affected by the issue—is largely dependent upon the goals of the communicator. The communicator, however, must keep in mind the frames that will be called into action when viewers encounter their messages. As the villain in the story of climate change, the fossil fuel industry cannot afford to employ a negative tone or to depict a dismal future. Furthermore, such companies cannot afford to legitimize the accusations of the nonprofit sector, even when organizations call their concern for children into question. After all, a company's success depends upon the bond that it creates with the consumer, and perhaps the only recourse that the fossil fuel industry has against such negative character attacks is to turn the other cheek and kill them with kindness (Hobbs).

While studies show that positive gain frames are largely preferred by viewers, loss frames are often more likely to motivate viewers to take action (Charry et al.). Perhaps this is because messages that promise the continued sanctity of a carefree [often middle class] childhood space really only reinforce a lifestyle that many viewers take for granted as the right of their children. A loss frame, however, depicting a future in which that carefree middle class childhood is utterly erased? That is a potentially terrifying possibility for many viewers, and while it may evoke nothing more than outrage, it could also be a powerfully motivating force. It is unlikely that the standard adult frames of children as the innocent, vulnerable leaders of the future will change any time soon, nor is it likely that advertisers will stop using those deeply-rooted frames to form new connections in the minds of adult viewers. Perhaps the best one can presently hope for is that representations of children will be layered with more complexity in the future…though I won't hold my breath just yet.

Finally, how do children—real children—factor into the many messages that evoke their likeness for the purpose of motivating adults? Is there any room for true child participation in a climate change communication battle that is always seen from the adult perspective? Even those ads that feature children's climate change complaints, demands, and solutions don't legitimize children as potential partners in this battle. As adults cling desperately to their frames of childhood, children go on deserving more from adults: more information, more opportunities to discuss and participate, and more credit for their capacity to engage in difficult discussions and contribute with legitimate ideas of their own. It is important that we try. "Children must be seen as active participants in social life and not just passive subjects of social structures and processes" Kaziaj writes (427). For "how…media think of and represent children can play a crucial role in shaping our perceptions of them and their positioning in society" (426).

In the end, the advertising world proves to be yet another sphere that clings too tightly to the perception of childhood innocence to allow children a real seat at the table. After all, children's voices were only heard in one-third of the selected advertisements; most of their statements (usually only a few words or a sentence) were clearly scripted and in adherence with accepted frames of childhood. To be fair, however, the same seems to be true of research on representations of children in the media. While much of the research that I encountered lamented the absence of children's perspectives in the media or in environmental policy discussions, very little of this research actually included children's perspectives. This very chapter adds to the mountain of discourse (in advertising, media, research, etc.) talking about children and around children, rather than with children. This is not all the fault of the researcher, however. Both the IRB and wary parents and teachers make if difficult to access children's perspectives in research,

and COPPA laws make it difficult to find the opinions of pre-teens or younger children online.[112]

Society has built walls around children to protect them from the world, and in turn, these walls

keep the world from including children more directly. I hope to address some of these concerns

in the following chapter, which focuses on the children's climate lawsuit and children's participa-

tion in climate discourse online.

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[112] Many social media communities and online discussion forums restrict access to those above the age of twelve. This does not mean, of course, that younger children do not share their perspectives online. Rather, they must either share their opinions in adult-sanctioned spaces (usually separated from adult communities, yet heavily monitored by adults) or use accounts that do not disclose their true age. This, of course, makes it difficult for researchers to find children's perspectives online.

CHAPTER 2:
THE POLITICAL DISCOURSE OF CLIMATE CHANGE EDUCATION

"I'm not a scientist. I'm a student like you, but…everyone knows what science says is true changes with each new research project…Even research as recent as last year is frequently incomplete or inaccurate.
From what I've heard, the cost to reduce CO2 would be enormous . . . We could create disaster for more countries, and hardship for all of us, and not change the pattern of warming and cooling. We need to encourage scientists to consider every possibility...Don't you agree?"   — Teenage narrator, Unstoppable Solar Cycles

Some think of climate change as a topic for grown-ups. However, even young children are able to understand the basic idea. More importantly, they're able to begin taking action to slow down global warming. It's in their best interest to do so. Their future depends on the actions we all take now. If we teachers, and their parents, don't tell them the truth, and don't point the way toward a positive future, who will? — Kottie Christie-Blick, New York teacher

"Dear Parents...our class will be participating in a Blackout Day, in support of our coal mining heritage… What a great field-study day to teach Kentucky's Precious Resource (Coal) to [our school's] precious resource (Kids)!" — Kentucky teacher

"...we ought to take all this stuff that comes out of the EPA that's brainwashing our kids, that is propaganda…" — GOP Senator Inhoffe

"My daughter's fifth grade class is currently being indoctrinated regarding 'human caused' climate change. Her teacher sent home a note informing parents that she will be screening CNN's Planet in Peril, which she described as 'fairly objective'. Is there a good film I could recommend the teacher to show to provide balance to my daughter's class." — Parent

"My son's science teacher showed right wing funded global-warming-is-a-myth video. I am composing an email to him, what should I say?" — Parent

INTRODUCTION

The EPA's Missing "Student's Guide to Global Climate Change"
and Kids' Climate Change Education as a Sign of the Deepening Divide

The current state of the US Environmental Protection Agency (EPA) is perhaps one of the

clearest symbols of the political power shift occurring in America today. Prior to the 2016 Presi-

dential election, the EPA was a great proponent of US participation in the Paris Agreement on

climate change,[113] in which the United States pledged to cut emissions by 26-28 percent com-

pared with 2005 levels by 2025 (UNFCCC). Under former EPA Administrator, Gina McCarthy

(appointed by President Obama), climate change research was made a priority. In fact, the EPA

produced an educational climate change website for students in 2011, which has become one of

the most widely-cited tools for educating students about climate change in schools.

After the newly inaugurated President Trump established Scott Pruitt as EPA Administra-

tor in February, 2017, however, the stated goals of the EPA have seen a marked change (Gaby).

Within a few months of Pruitt's confirmation, the EPA's "A Student's Guide to Global Climate

Change" disappeared from the web, along with all other traces of the EPA's climate change re-

search and resources (Eilperin; K. Rodriguez). Not long after the site's disappearance, resistant

EPA staff (working under the Twitter handle @RogueEPAStaff) tweeted, "We've heard from

teachers who can't access materials they use for their classes" (Eilperin). Instead of gaining ac-

cess to the bright colors and excited faces of kids embarking on an educational climate change

journey around the world, site visitors were treated to the following message: "This page is be-

ing updated. Thank you for your interest in this topic. We are currently updating our website to

reflect EPA's priorities under the leadership of President Trump and Administrator Scott Pruitt. If

you're looking for an archived version of this page, you can find it on the January 19

snapshot" (epa.gov/climatechange/kids).[114]

The disappearance of the "Student's Guide" was hardly shocking. The former Oklahoma

Attorney General, Pruitt sued the EPA fourteen times, demonstrating a fundamental misalign-

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[113] As of May, 2017, the Paris Agreement had been ratified by 146 countries, including the United States, which pledged "to cut emissions between 26 and 28 percent compared with 2005 levels by 2025" (UNFCCC). On June 1, 2017, President Donald Trump announced that the US would be withdrawing from that agreement (Shear).

[114] Despite this message, no actual snapshot exists. The EPA indicated that the failure to record the site was accidental.

ment with the Obama-era EPA's goals (Dennis). Furthermore, multiple sources point to Pruitt's

skeptical view of anthropogenic climate change, which is in line with President Trump's own per-

ceptions (Eilperin; Gaby).[115] Beyond the well-known stances of Pruitt and Trump, the EPA indi-

cated that the site's days were numbered soon after Trump took office in January of 2017. Ac-

cording to a statement from Trump transition appointee Myron Ebell on January 25, 2017, "My

guess is the web pages will be taken down" (Kroll). Some suggest that Trump's environmental

policies—including his decisions regarding climate action and education—are driven in large

part by the demands of his political base, and particularly those living in conservative states and

coal country.

The disappearance of the EPA "Student's Guide" is only one example of how polarized

our nation has become on environmental issues and climate change in particular. Classrooms

across America have become a political battleground, with climate change education as a

deeply debated issue that divides educators, parents, politicians, and kids alike. One large barri-

er to teaching anthropogenic climate change in the United States is the ongoing political debate

about the degree of human impact on global climate changes. While some (deemed "climate

alarmists" by conservatives) suggest that the scientific community has reached consensus on the

significance of anthropogenic climate change, others (self-proclaimed "climate realists" or "cli-

mate-deniers" according to liberals) assert that no such consensus exists, and that any changes

in the climate are both natural and potentially beneficial. This fundamental disagreement about

the basis of climate change has led to further debates about what children should (or should not)

learn about climate change in schools. Some insist that children need to be educated about the

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[115] President Trump has tweeted his overwhelming doubt about anthropogenic climate change on numerous occasions since 2012. These tweets can be viewed on his Twitter account (@RealDonaldTrump) through the following link: https://twitter.com/search?l=&q=hoax%20OR%20climate%20from%3Arealdonaldtrump&src=typd&lang=en.

wave of climate-related trouble headed their way, and that adequate education is the best

chance we can give children of solving climate change problems in the future (Bigelow; Christie-

Blick; Freeman; Fritz; Stager). Others say that the causes of climate change have not been de-

termined with certainty, and that teaching anthropogenic climate change as settled science[116]

merely scares or "brainwashes" children for no practical reason (Horner; Milloy; Reilly; Saxena).

Meanwhile, children are left in the middle as states battle over the new climate change curricu-

lum standards. Some states mandate the teaching of anthropogenic climate change, others en-

courage teachers to "teach the debate," and most states have yet to make a decision about

whether climate change should be taught at all (let alone how it should be taught). Those sci-

ence teachers who do tackle climate change in the classroom teach the subject with wild varia-

tions.[117]

This chapter will focus on climate change curriculum and the furious storm of online dis-

course surrounding that curriculum. This discourse largely stems from adults—news media out-

lets, parents, teachers, and politicians—each with a variety of viewpoints on what children should

or should not be taught about climate change in schools. At the very core of the debate about

climate change is a question about children's access to information. Climate change skeptics

suggest that the continual questioning of scientific assertions is at the heart of scientific method,

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[116] This 'settled science' perspective is based on claims that—of the climate science research that takes a position on the causes of climate change—97% asserts that humans are likely large contributors to the problem (Cook, "Quantifying the Consensus"; Cook, "Consensus on the Consensus"). Proponents of this view believe that, since scientists agree, the debate should be over. Opponents of the consensus view tend to either question consensus research (Tol) or call climate scientists themselves into question (Bast).

[117] As of December, 2016, eighteen states, as well as Washington D.C., officially adopted the Next Generation Science Standards: Arkansas, California, Connecticut, Delaware, Hawaii, Illinois, Iowa, Kansas, Kentucky, Maryland, Michigan, Nevada, New Hampshire, New Jersey, Oregon, Rhode Island, Vermont, and Washington. Forty other states showed interest at that point. Forty other states were showing interest at the time (http://ngss.nsta.org/About.aspx). Although the standards passed in Kentucky and Kansas, they have been heavily challenged by some groups within those states. Other states that have either challenged or rejected the NGSS are Wyoming, Idaho, West Virginia, Texas, and Okla-homa.

and that—by teaching anthropogenic climate change as a certainty—teachers would be denying

students the right to study the evidence first-hand and make up their own minds. In contrast,

"climate change believers" suggest that teaching climate change as a debate presents students

with the perspective that there are no wrong choices, that beliefs in natural or human-driven cli-

mate change are fundamentally equal, and that students can settle on an opinion based on po-

litical views or values, rather than referring to hard facts and scientific data.[118]

If there is one thing that childhood studies scholars have learned, it is that children are

not passive sponges that uncomplainingly absorb the information imparted by adults. Rather,

children interpret information based on their own unique viewpoints, which are based upon their

own unique experiences and the many factors that shape their views of the world. In other

words, we can choose to teach climate change as settled science and try to ignore "alternative

facts" in the classroom, but youth are likely to gather their own information,[119] form their own

opinions, and push back against educators who refuse to grant them the capacity to have an

open, honest discussion.

In this chapter, I set out to get a better sense of the national dialogue surrounding cli-

mate change education in America, as well as some of the materials being used in American cli-

mate education. Using the focal points of 106 climate education-related news articles as a

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[118] Of course, it must be noted that dominant perspectives can vary greatly from region to region, as well as within each community and school. The perspectives that make up the dominant discourse within a given region, community, or school may be greatly influenced by the political climate within that space.

[119] This may be less likely to happen in communities where most adults share the same political views and attempt to pass their perspectives and values onto community youth. However, some childhood studies scholars assert that the concept of *agency* (or "the capacity of individuals to act independently") indicates that youth "can make choices about they things they do and express their own ideas" beyond those of their parents or other adult mentors (James and James 3).

guide,[120] I analyzed the use and discussion of climate education materials by teachers, parents, students, politicians, and journalists (see appendices F and G for text selection details).[121] Based on this analysis, I make several key arguments: first, the US is currently engaged in a panicked, largely oppositional dialogue over the framing of climate-related education, with both liberal and conservative interests clamoring to make decisions in the informational gatekeeping process. This scramble for educational control pushes educators on both sides of the aisle to select different educational materials and frame the climate debate differently for students. Second, I contend that this tug-of-war over kids' climate education demonstrates the importance that special interests place on children within the larger climate debate. Youth have become targets in a highly politicized debate, perhaps because children are simultaneously viewed as powerful influencers of perceptions in the home and as weak-minded and impressionable. Third, I argue that—despite the framing of climate change in the classroom—youth are able to independently seek out information to support their own frames, which are deeply intertwined with the perspectives of their families, friends, and communities. Rather than discouraging youth by framing climate change as either a scientific truth or uncertainty, I propose that discussions of media framing be incorporated into discussions of climate education materials, so that teachers and students can work together to—not only learn about climate change—but interrogate the structures that compose each side of the debate. Ultimately, the framing of climate change education is important, because the teachers, parents, and politicians involved in these debates of-

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[120] Based on the media framing concept of agenda setting (or the belief that the salience of topics in public discourse frequently correlates with the selection of topics by media creators [Entman "Framing Media Power" 336]), the educational texts that were most frequently discussed by popular online news sources were analyzed in this chapter.

[121] In order of popularity, these news sources were CNN, The New York Times, Washington Post, The Huffington Post, Breitbart News, Fox News, and the Conservative Tribune. For more details on the selection of these news sources, please see appendices F and G.

ten act as gatekeepers for the information that youth receive (or don't receive) about climate change.

BACKGROUND
A Brief History of the Tension between
Science and Schools in the United States

Science education has long been considered a staple of children's educational experience. However, the teaching of science curriculum does not always go unchallenged—particularly when it runs counter to deeply-held existing value systems—and the challenge to climate science curriculum is not the first of its kind in the US. Within ten years of Darwin's first publication of Origin of the Species in 1859, the theory of evolution was accepted by nearly three-quarters of the scientific community (Flannery). However, the reception of evolution in schools was more varied, and in some cases, far less welcoming. Many religious groups expressed concerns that the theory of evolution contradicted Christian doctrine, and thus, undermined the attempts of religious leaders and parents to teach their children to accept their beliefs and respect the church. Based on these perceived threats, religious groups, parents, and concerned community members have been battling the teaching of evolution in schools for years, with mixed success. The first and most famous example of this was a 1925 court case, The State of Tennessee v. John Thomas Scopes (commonly known as The Scopes Monkey Trial) in 1925, in which a Tennessee science teacher was taken to court over the teaching of evolution in his classroom (Adams; Bomboy).

Today, there are still those who challenge the teaching of evolution in schools, particularly within the American Bible Belt,[122] and it is often within this same region—in addition to states

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[122] Used to refer to states in the American southeast and south-central regions, which generally contain a greater proportion of socially conservative evangelical Protestants.

that are top fossil fuel producers—[123]that fight the hardest against climate change education

(Pew Research Center 2014). Resistance to evolution education is often covered in conjunction

with resistance to climate change education, perhaps because some of the same groups resist

the scientific consensus in each case (Bailey; Berry; W. Bigelow; Cutraro and Schulten; Hope; J.

Miller; Plumer; Reilly; Stager; Strauss; Visser). This is important because—while research on the

resistance to climate change education is extremely limited—resistance to evolution education

has been researched for years (Clough 409; Dotger et al. 552; Evans 221; Kover and Hogge;

Laats 25; Reiss 157; Thagard and Findlay). These and many other scholars demonstrate that

Christian conservatives have historically viewed scientific theory as a threat to the religious com-

munity in particular situations, and that this perception has shaped the relationship between reli-

gious conservative and scientific communities to some extent. This research also points to the

wide variations in the framing of science education in messages stemming from religious conser-

vatives, on the one hand, and proponents of the scientific community, on the other.

News Media Bias

Since many of the perspectives contained in this chapter stem from news media cover-

age, it is important to first consider news media bias and its potential role in shaping public dis-

course and perspectives. Of course, the traditional aim of journalism has been to at least main-

tain the appearance of objectivity. Some of the journalists and news sources within this chapter

upheld the semblance of impartiality better than others, though bias is often seen in the amount

of coverage an issue or perspective gets in one news outlet over another, or even in the place-

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[123] Many of the top fossil-fuel producing states in 2015, including Texas (crude oil/natural gas) Wyoming (coal), West Virginia (coal), Oklahoma (natural gas), and Kentucky (coal) experienced significant push-back against consensus-based climate education. Please view The Department of Energy's State Profiles and Energy Estimates page for more information about state-level fossil fuel production in the US: https://www.eia.gov/state/rankings/#/series/101.

ment of particular quotes and information within a given article. For example, while The New York Times (NY Times) reporter John Schwartz does not explicitly state an opinion about a West Virginia school board decision to water down climate change curriculum in the Next Generation Science Standards (NGSS), the strategic placement of statements by an inexperienced school board member and an actual scientist speak volumes within the article:

> Mr. Linger, who is a technology entrepreneur, said he had come to his conclusions about warming after doing research on the Internet and comparing data from satellites, weather balloons and ground sensors over time. Last month, Mr. Linger told The Gazette, 'We're on this global warming binge going on here.'
> Amy Hessl, a professor of geography at West Virginia University who studies climate change, said that while temperatures might vary from year to year, the overall trend over time clearly shows warming….Mr. Linger's arguments, she said, were "exactly what the problem is with regard to teaching our students." Students "need to have the understanding, and the ability, to discuss these things in an intelligent way," she added. (Schwartz)

In this passage, Schwartz represents key individuals in particular ways without stating explicit opinions, both through juxtaposition, and the selection of particular interview statements over others. Schwartz alludes to Mr. Linger's inexperience with climate science by highlighting his status as a technology entrepreneur just before introducing his perspective on climate change. This is especially telling because—although Linger is quoted throughout the article—this is the first mention of his professional title. Furthermore, by selecting a particularly informal statement from Linger's interview ("We're on this global warming binge going on here"), and positioning that statement just before a more formal, conflicting statement made by an actual researcher of climate change, Schwartz casts a very particular representation of the actors involved in the school's controversy.

According to media framing scholars, such framing can be intentional or unintentional, but it cannot be avoided: "Journalists cannot not frame topics because they need sources' frames to make news, inevitably adding or even superimposing their own frames in the

process" (D'Angelo and Kuypers 1; see also Gamson and Modigliani; Kuypers)." Indeed, "similar to their audiences, journalists are susceptible to perceptual biases and are more likely to focus on information, events, or statements that match their own cognitive frames . . . journalists' cognitive frames…influence news production and are reflected as media frames in news reporting" (Scheufele and Scheufele 112).

Similarly, Robert M. Entman in "Framing Media Power" states:

The term bias seems to take on three major meanings. Sometimes it is applied to news that purportedly distorts or falsifies reality (distortion bias); sometimes to news that favors one side rather than providing equivalent treatment of both sides in a political conflict (content bias); and sometimes to the motivations and mindsets of journalists who allegedly produce the biased content (decisionmaking bias). (334)

Though there are different levels of intentionality attached to such news media framing, is it important to acknowledge its existence. There is no such thing as pure objectivity, neither in the production nor the consumption of media messages. However, when the perceptions of the viewer agree with news media framing of an issue, the viewer is likely to accept news coverage as pure fact. Alternatively, if a piece of news coverage does not align with the observer's worldview, that observer is more likely to dismiss the coverage as 'fake news.' This is important to keep in mind as we explore a variety of perspectives on climate change education in the news media and beyond.

Thus, the perceived validity of the scientific climate consensus may vary depending on which news source is switched on or clicked open. In addition to the expressions of political bias on the personal or network level, media bias can also be based upon the haziness of scientific interpretation. While it is easiest to think of the world —and particularly science—as categorized into into clean, black and white categories, many of the world actually exist in the overlapping gray areas.

These gray areas leave much scientific information vulnerable to interpretation bias, or the skewed interpretation of scientific information based on personal biases. For instance, Cook et al. conducted six independent studies of climate science research papers in 2013 and 2016, and found that "the consensus that humans are causing recent global warming is shared by 90%–100% of publishing climate scientists according to six independent studies…based on 11,944 abstracts of research papers, of which 4,014 took a position on the cause of recent global warming" (Cook et al. "Consensus" 1; Cook et al. "Quantifying" 1). In 2015, however, economist Richard Tol responded to Cook et al's "highly influential consensus study," finding the research to be insufficient in part because 66% of the studied papers took no position on ACC, and "many abstracts are unaccounted for" (Tol 1). This is an issue of interpretation, since Cook et al. identified these unexamined abstracts as "nonexperts such as economic geologists and a self-selected group of those who reject the consensus," and suggested that "Tol also reduces the apparent consensus by assuming that abstracts that do not explicitly state the cause of global warming ('no position') represent nonendorsement" (Cook et al. "Consensus" 1). The general public may take issue with either side claiming affirmation based on the 66% of climate science papers that take no side on ACC. Based in part on this gray area, however, some media outlets may be able to justify the hand-picking of their science, so to speak. Examples of this will be discussed in the subsequent case studies.

Climate Change Education: Are We Doing it Wrong?
The National Debate over the Next Generation Science Standards

Recent research suggests that climate change education varies widely in the US. A 2016 survey of 1,500 American science teachers demonstrated that—of those who included climate change lessons in their courses—many had an "insufficient grasp of the science [that] may hinder

effective teaching" (Plutzer 664). For instance, 30% of teachers participating in Plutzer's study reported teaching students that climate change "is likely due to natural causes" despite scientific consensus to the contrary (664). This suggests that for whatever reason, many teachers are not [accurately] teaching anthropogenic climate change as settled science.

Plutzer's research goes beyond the identification of varying climate science education, and works to posit some reasons for this variance. First, Plutzer suggests that "some teachers may wish to teach "both sides" to accommodate values and perspectives that students bring to the classroom" (664). Some teachers reported feeling pressure from parents or school adminis-trators to avoid teaching the climate consensus, though such pressure was only reported in 4.4% of teachers surveyed. In fact, 6.1% of participating teachers reported pressure by their col-leagues to teach climate consensus (664). Plutzer also suggested that a lack of understanding may account for the varying approaches taken by science teachers. This assertion is supported by the fact that 50% of participating teachers reported emphasizing environmental issues unre-lated to climate change (like pesticides, ozone layer, and rocket launch impacts) as causes of cli-mate change (665). Furthermore, only 30% of middle-school and 45% of high-school science teachers selected the correct option of "81 to 100%" when asked the proportion of climate sci-entists who identify human activity as the most likely cause of climate change, which suggests a lack of awareness or disagreement about the consensus.

However, Plutzer did not see ignorance as the primary cause of educational variance, stating that "rejection of sound scientific conclusions is often rooted in value commitments rather than ignorance, and science teachers are not immune from[124] this tendency" (665; Kahan

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[124] In order to gauge political ideology, teachers were asked whether they agreed or disagreed with the following statement: "It's not the government's business to protect people from themselves." Teachers who agreed with this statement were more likely to teach "both sides" of the climate change debate rather than scientific consensus (665).

1). Plutzer reached this conclusion by including a question meant to gauge science teachers' political affiliations; responses to this question ultimately suggested that those identified as more conservative were far more likely to teach anthropogenic climate change as debatable rather than as settled science (665). Each of the reasons that Plutzer identified for variance in climate change education will be addressed in this chapter, through online discourse (via news media coverage, forum posts, parent and teacher blogs, etc.) and through the educational media selected by science teachers.

The coverage of climate change in American classrooms is gaining more attention as states adopt—or reject—new science curriculum standards that include climate change. The Next Generation Science Standards (NGSS) include a wide range of targets that vary by grade level. Only eighteen states have adopted the standards thus far, though adoption of the standards certainly does not signify general acceptance of the standards amongst the state's population, and the standards have received significant pushback from groups in Kansas and Kentucky (Berry; Morello; Strauss; Valentine). Several states—including coal states like Wyoming and largely conservative states like Texas—have chosen to reject the standards outright, largely based on the inclusion of both evolution and climate change.[125] A small portion of the NGSS covers climate change, and though the wording of climate education standards leaves a lot of room for teacher interpretation, the standards do make it clear that anthropogenic climate change and climate science consensus should be taught. For instance, the middle school "weather and climate" standards include the requirement of the following core idea:

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[125] As of December, 2016, eighteen states, as well as Washington D.C., officially adopted the Next Generation Science Standards: Arkansas, California, Connecticut, Delaware, Hawaii, Illinois, Iowa, Kansas, Kentucky, Maryland, Michigan, Nevada, New Hampshire, New Jersey, Oregon, Rhode Island, Vermont, and Washington. Forty other states were showing interest at the time (http://ngss.nsta.org/About.aspx). Although the standards passed in Kentucky and Kansas, they have been heavily challenged by some groups within those states. Other states that have either challenged or rejected the NGSS are Wyoming, Idaho, West Virginia, Texas, and Oklahoma.

> Global Climate Change: Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth's mean surface temperature (global warming). Reducing the level of climate change and reducing human vulnerability to whatever climate changes do occur depend on the understanding of climate science, engineering capabilities, and other kinds of knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities. (NGSS "MS: Weather and Climate")

This passage leaves no room for interpretation about humanity's role in causing climate change. Under the "Earth and Human Activity" category, NGSS also prompts teachers to "ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century" (NGSS "MS-3SS3-5"). As if the authors of the curriculum sensed the opportunity for teachers to try and disprove human causes during class time, clarification has been provided in bold, red lettering: "Emphasis is on the major role that human activities play in causing the rise in global temperatures" (NGSS "MS-3SS3-5"). The debate over the NGSS only scratches the surface of a larger climate change education debate, however, since each new piece of educational media focused on climate change offers a new opportunity for debate.

TRENDS IN EDUCATIONAL MEDIA AND CLIMATE EDUCATION DISCOURSE

The discourse surrounding climate change education—perhaps unsurprisingly—varies depending on the media source under observation. Of the eligible news sources found to be most popular with conservatives, the ACC perspective was generally treated with either great skepticism (Fox News) or outright disdain (Breitbart News, Conservative Tribune). When a problem was identified by these sources, that problem was often focused on the left's "brainwashing" or "indoctrination"[126] of students, or an imbalance of information in schools (Delingpole; Haskins; Reilly; Saxena). Educators were largely blamed for this problem. Those who either believed

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[126] Both of these words were frequently used in conservative articles and forums.

in or taught ACC as settled science were most often depicted as crazy.[127] The most frequent solution posed by conservative news sources was the teaching of climate change as unsettled science, with opportunities for students to engage in "scientific inquiry" through debates using sources on both sides of the issue.

Eligible news sources favored by liberals tended to treat ACC as settled science (CNN, NY Times, The Huffington Post (HuffPost),[128] Washington Post). These publications often identified the ignorance of influential adults (parents, community members) and the influence of special interests (conservative think tanks, the fossil fuel industry) as problems affecting climate change education. While "ignorant" parents, role models, and school board members were merely depicted as uneducated, disadvantaged, and sometimes desperate, special interest groups and corporations were more often villainized for the perceived willful misguidance of the ignorant.

Very little of the available online and media discourse about climate change education includes actual students. A few news sources occasionally consulted with the odd teenager on the topic of climate change education, though this occurred in only three articles out of more than one hundred. Youth perspectives are even more scarce where younger children are concerned. In fact, one would almost think that younger children are mythical beings from reading news articles covering climate education, since they are so seldom asked to share their opinions regarding climate change education (only one article in 2007).

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[127] According to frame analyst Barbara Gray, individuals use character frames in their depictions of other individuals. "Characterization frames arise from the attributions of blame and causality that we make about our experiences and about what others have done to shape our experiences" (23). When a person uses negative frames to depict people who oppose his or her own frames of the world, that person justifies his or her own perspectives, and thus, his or her own identity.

[128] The Huffington Post was renamed HuffPost in April, 2017. Within this project, the publication will generally be referred to as HuffPost. However, articles published before April, 2017 will be labeled as The Huffington Post in the Works Cited at the end of this project.

There were generally three types of educational media under examination within this section: those materials that avoid identification of climate change while highlighting opposing information, those that teach anthropogenic climate change as unsettled or still under debate within the scientific community, and those materials that teach anthropogenic climate change as settled science. The differences between the two latter groups of materials were sometimes sub-tle, and sometimes quite stark. Within the lessons posted by teachers online, this line was often too hazy to discern, particularly when teachers did not overtly identify their stance or their ulti-mate goal for student learning within the lesson. Ultimately, materials that taught the debate were far less likely to identify the problem of climate change clearly, and—as subsequent case studies will show—occasionally use slippery words and statements to elevate uncertainty about the science.[129]

CASE STUDY 1: Old *Inconvenient Truth*[s] in the Classroom:
Al Gore's Film and its Undying Significance in Climate Change Education

More than ten years after it was first introduced, Al Gore's An Inconvenient Truth (2006) is still a foundational text in classrooms across the US.[130] In fact, even in 2017, Al Gore and his film are still some of the most talked about symbols of the climate change movement, both in classrooms and beyond. Conservatives still utter his name with disgust when lamenting the "gleeful brainwash[ing]" of "millennial snowflakes" (Saxena). Politicians and the media still de-bate about Gore in discussions of the NGSS. Many educators continue to use An Inconvenient

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[129] To further clarify this science, the independent studies conducted by Cook et al (involving fourteen researchers) were based upon the analysis of 11,944 climate science research abstracts. However, the 97% consensus conclusion is based only on the 4,014 research papers that took a position on climate change (97% of which confirmed anthropogenic causes of climate change). 66% of the 11,944 papers took no position on climate change. Only 0.7% of papers taking a position rejected ACC, and 0.3% were unable to reach a conclusion on ACC.

[130] Gore will be releasing a sequel to this film (titled An Inconvenient Sequel: Truth to Power) in July of 2017, to mark the ten year anniversary of the first film.

Truth (AIT) as the centerpiece of their climate change education units, and students on Twitter

and Facebook still occasionally gush or complain about viewing the film for the umpteenth time

in yet another class. Outdated and highly debated as the film may be, An Inconvenient Truth is

still undeniably very relevant in 2017 climate change education and related discourse.[131]

When Gore's film first came out, it made a lot of waves. Gore had been delivering his

climate change presentation worldwide for years, but the film brought that presentation into a

wider public sphere for the first time. It made over twenty-four million dollars in the US alone—

making it one of the top ten highest grossing documentaries of all time—and it is largely credit-

ed with raising global awareness of the climate change dilemma, and even reviving the environ-

mental movement (Washington Post; Khan; Grist). After its release in theaters,[132] the film quickly

spread throughout schools, in part because activist groups have offered free copies to educa-

tional organizations like the National Science Teacher's Association—a move that proved to be

quite controversial with conservatives (Mervis; Richardson).

While the film did take several strange detours into Gore's personal life, it focused pri-

marily on driving home for a general audience the science and potential consequences of cli-

mate change. The film did not focus intensively on solutions. In fact, solutions were limited to a

few low-level, text-only suggestions for individual action, which ran intermittently during the

movie's credit sequence. The problem of climate change was the film's deepest focus, and that

problem was presented as truly dire. For instance, in the film, Gore says of Earth: "it's our only

home. And that is what's at stake—our ability to live on planet Earth and have a future as a civi-

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[131] It is difficult to know for sure why this film maintains its relevance, though convenience is one possibility. AIT is al-
ways available to stream somewhere on the web (currently on hulu.com, and is widely available at public libraries
across the nation (perhaps pending local politics). Furthermore, there is a vast range of teacher's discussion guides,
lesson plans, and other resources that make the documentary convenient for classroom use.

[132] It should be noted that very few documentaries are released widely in theaters, so this film was already positioned to
gain a higher level of attention than many documentaries.

lization." Gore spends the largest amount of time explaining the problem and the consequences of inaction, focusing on humanity in general as the source of the problem. The solutions and moral judgment are largely absent.

Within the film, children are framed as innocents in the path of grave danger that adults have thus far refused to recognize. Gore reminds the audience that "what we take for granted might not be here for our children," and that "future generations may well ask themselves, 'What were our parents thinking? Why didn't they wake up when they had the chance?'" Gore also referenced the near death of his son—based on his own self-described carelessness—as a way of tapping into the emotional stakes of inaction, and how those stakes directly relate to the wellbeing of our own children. Parents and other adults responded to these child-based appeals in a variety of ways. For instance, twelve parents reviewed the film on Common Sense Media, which provides educational media reviews for parents and teachers. Of those reviews, only five approved of the film for child viewing, making statements that suggested the film was important enough to show to kids despite perceptions of potentially upsetting, boring, or complex material. For instance, one review stated that, "It might be hard for a younger kid to sit through this. But the message must get out." Parents who disapproved of the film were far less likely to mention children in their reasoning, despite the specific focus of Common Sense Media on children and education. In one review, however, a parent noted that "This movie is nothing but propaganda. I would not recommend if for an adult never mind a child trying to learn."

The negative perceptions of parents were not limited to web reviews alone, and some parents reacted strongly to classroom viewings of the film. For instance, one group of parents wrote to their local school board to say, "No you will not teach or show that propagandist Al Gore video to my child, blaming our nation—the greatest nation ever to exist on this planet—for

global warming" (Harden). When this parent uses the word propagandist, he uses[133] what is

called a character frame—or the framing of another individual—to refer to Al Gore. According to

frame analyst Barbara Gray, "characterization frames arise from the attributions of blame and

causality that we make about our experiences and about what others have done to shape our

experiences" (23). When a person uses negative frames to depict people who oppose his or her

own frames of the world, that person justifies his or her own perspectives, and thus, his or her

own identity. This parent seems to connect his own identity with his country, and thus, what is

seen as an attack to his country is seen as a personal attack.

One of these same parents—after having the film banned from his school district—told

The Washington Times, "Al Gore's video has no place in my kids' public school classroom any

more than condoms." By associating Gore's film with condoms in the classroom—which is tan-

tamount to encouraging sexual activity to many parents—this parent frames AIT as going be-

yond misinformation, and toward the encouragement of immorality. And this parent's framing

was not an isolated incident. As more and more teachers began showing the film in classrooms,

the trickle of parental complaints turned into a steady flow. Many schools mandated that board

approval be received before teachers added the film to their lesson plans, and permission slips

be sent home to give parents a chance to refuse to allow their children to view the film.

Unlike most film review sites, Common Sense Media includes sections for both children

and parents to post reviews. This presented a rare opportunity to view limited samples of chil-

dren's and parents' responses to the film. In contrast to parents, twelve out of fourteen kid re-

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[133] Interestingly, different people are likely to apply the label propaganda to very different things. The official definition of the word propaganda is "information, especially of a biased or misleading nature, used to promote or publicize a particular political cause or point of view" (New Oxford American Dictionary). However, conservative and liberal Ameri- cans are likely to frame the messages of their opponents as biased propaganda, while labeling their messages that mirror their perspectives as informational.

views on Common Sense Media were favorable. Furthermore, kid reviewers were actually more

likely than adults to both blame adults for climate change, and call for actions that might miti-

gate the effects of climate change on kids. For instance, one fifteen-year-old reviewer said,

> especially your kids should see it, because you grown ups are responsible for them to
> grow up in a world like this! and for all you deniers out there, why don't you sign a con-
> tract saying, that you are going to be the last people to get fresh water and food, be-
> cause if climate change messes up our food and water supply, which won't take too long
> if we keep on going like this, you're screwed!!

In this review, adults are framed as the villains of the climate change story, with youth acting in

retaliation by demanding that the needs of those without fault be placed first (this is quite a con-

trast to the countless sweet, innocent young victims presented in some of climate change action

campaigns).

While I found a very limited youth response to most educational climate change media

generally, a steady stream of student responses to AIT exists on Twitter. Youth references to see-

ing the film in a school context were more likely on Twitter than references on Common Sense

Media. One thread on Twitter suggests that an entire generation of kids have seen this film in

one class or another at school, and one credits the movie with bolstering a love of science, say-

ing "I got so excited about science during a high school global climate change class and after

seeing Al Gore's Inconvenient Truth in theaters!" (2017).

However, only two of the thirty-four student posts about AIT were positive, and thirty-

three were decidedly negative.[134] Even in recent years, students occasionally post what are

mostly complaints about Gore-obsessed liberal teachers who are forcing them to watch An In-

convenient Truth yet again...that is, if students show up to class to view it, and some admitted

plans to skip class in order to avoid the film:

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[134] Only one post (reading "We watched the documentary movie 'An Inconvenient Truth' with Al Gore at school today.
Have you ever watched it?") seemed neither positive nor negative.

"Our teacher is making us watch Gore's ' An Inconvenient Truth' with a quiz as well" (2016).

"Teacher just said Al Gore's movie An Inconvenient Truth was 'groundbreaking' and a 'must watch documentary.' I've heard it all now #smh"[135] (2014).

"Health science teacher is talking about al gore's inconvenient truth.. suddenly disinterested in the whole lecture" (2014).

"Purposefully missing class on the day my teacher shows 'An Inconvenient Truth,' Al Gore's view on global warming. #TFM"[136] (2013).

"I have to watch an inconvenient truth for the 7th time for school. Slit my throat and poop on al gore plz" (2013).

"I've never hated a political figure more than al gore & we WOULD be watching an inconvenient truth at school today. #KillMe" (2012).

As these and many other quotes demonstrate, many students are well aware of Gore's film (expecting their Twitter followers to be aware of the film as well), and many associate the movie with feelings of apathy or irritation. Some go so far as to suggest they'd rather be killed—or harm Al Gore—than watch the film. Several students also suggest that their teachers are "crazy" liberals who either worship Al Gore or have an obsession with him (and one even jokes that the teacher in question "wanted to have Gore's baby"). Some of the words that fill these posts, like "indoctrination," "rant," "liberal brainwashing propaganda," "crazy," and "nut job," tend to follow conservative news media framing of climate change believers as imbalanced or even insane.

This framing of resistant youth is reflected in and reflected by much of the conservative media. For example, Joseph Bast of the Heartland Institute—a conservative think tank that will be discussed at length in a subsequent case study—frames the film as an attempt to brainwash students to the liberal agenda: "Many kids get to watch An Inconvenient Truth by Al Gore over

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[135] Shaking my head

[136] too f***ing much

and over again and they pass that off as scientific construction...It's not. It's just a propaganda film" (Wall Street Journal). This film is perhaps considered propaganda by conservatives because it is either emotionally gripping or emotionally manipulative, depending on who is describing it. The film is at times humorous, often terrifying, and full of threats to the future of our species. As Gore himself puts it, "this is a moral issue." It has also become a political issue, despite Gore's claims that the issue is a bipartisan one. In fact, as Director of the Center for Energy and Environment, Myron Ebell said in an interview, Al Gore served as "the perfect proponent and leader of the global warming alarmists" and "a wonderful target for our side," because—as a politician and a Democrat—he is seen as politically divisive by conservatives (Khan). This statement suggests that Gore's status as a Democrat in politics makes him a polarizing messenger, rather than a unifying one.

Though I was unable to uncover any kind of representative sampling of teachers' perspectives and lessons related to An Inconvenient Truth, I did manage to locate twenty-two teacher-produced lesson plans for this case study, as well as a handful of perspectives captured in popular news sources. Of the twenty-two teacher-produced lesson plans analyzed for this case study,[137] eleven (50%) seemed decidedly skewed in favor of Gore's message, three (13.6%) seemed to teach the debate, three (13.6%) seemed to be skewed toward information that opposed Gore's message, and five (roughly 23%) did not contain an identifiable perspective.[138]

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[137] All of the lesson plans analyzed were located on betterlessons.com, where teachers are allowed to post their lessons for other teachers to use. These lesson plans were all created by teachers within the United States and posted between 2010 and 2016. All selected lessons centered on a viewing of Gore's An Inconvenient Truth, and all of the available lessons targeted students between the 5th and the 12th grades.

[138] This may mean that the lesson plans only included quotes from the film, etc., and did not ask students to do any work that might illustrate any particular approach to the film.

It should be noted that none of the lessons explicitly identified the teacher's position on the issue of climate change.[139] However, most lessons contained hints about these perspectives. For instance, some teachers who seemed to favor Gore's message posted lessons that were centered on the official curriculum provided with the film (which takes Gore's information for granted as fact). Three others assigned required writing with very telling themes:

- "Write a letter to your local MP to encourage him to take action against global warming" (Pergament).
- "Create a public service announcement that...raises awareness about the causes and consequences of climate change, and motivates people to take action in their communities, families and their own lives" (Sanquist).
- "Write a science fiction narrative about climate change" based around the concept of an uninhabitable Earth in the year 2050 (Dragoon).

Many of these favorable lessons leave little room for students to question Gore's message without losing points or even failing an assignment, since many questions position AIT as a factual source of information.

In contrast, teachers who seem to oppose Gore's message may start their AIT unit with the official movie guide, but end with a list of evidence that aims to refute Gore's claims. For instance, one teacher in New Jersey presents students with three pages of criticisms like the following: "The creative photos and cute creatures, often out of context and contrary to reality, are used to hijack people's care for the environment in an attempt to manipulate audience responsibility and action" (Grande 6). Words like "creative" and "cute" are typically associated with imagination, fantasy, and innocence. Such words seem to run contrary to perceptions of science and hard facts, and thus, they send the message that Gore's film is closer to fantasy than science.

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[139] Of the teachers who identified their state of origin, nine (41%) were located in northeastern states (CT, MA, NJ, NY), and three (13.6%) were located in Texas. Ten teachers (45%) left their origin unidentified. While five of the nine northeastern teachers taught lessons that skewed in favor of Gore's message, two-thirds of both the debate lessons and the lessons that opposed Gore's message originated in northeastern states. Texas-based lessons were divided evenly between categories.

This perspective is bolstered by the phrases "out of context" and "contrary to evidence." Finally, the severity of this criticism is deepened in the final sentence, which suggests that—not only should the film not be taken seriously, but—Gore intentionally aims to manipulate audience members. None of the criticisms provided by this teacher are cited, leaving students yet again to trust in their teachers' perceptions.

Another teacher shows opposition to Gore's film through a lesson called, "Examples of Strong Evidence," which merely includes two articles, entitled "Global Warming is a Scam," and "History Shows Benefits of Warm Weather" (Moore). Students are then asked to "practice identifying and labeling three pieces of strong evidence from the article," without any opportunity to identify what might be seen as weaker evidence in the three to five paragraph articles.[140]

Three other teachers seem to present a balanced amount of information on each side of the issue, and then ask students to complete some argumentative writing to express their position on the topic of climate change. Two out of three of the teachers who teach AIT as part of a debate do not provide any citations for the information that they provide to students, which may leave students with the perception that all of the information is equally reliable. Regardless of the perspectives of the teachers who created these lessons, most of the teachers who used AIT seemed to expect students to trust the information given to them without knowing where it came from.

It is important to note that I was not able to sit in on these lessons, and had to rely on context clues to garner a sense of lesson goals and approaches. However, in looking at these lessons, I began to understand how students could come to distrust information provided by

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[140] Only one of these articles—"History Shows Benefits of Warm Weather"—is cited by the teacher. This article was written by Thomas Gale Moore, who has connections with two conservative think tanks (The Cato Institute and the Heartland Institute), and worked in the past to fight the regulation of the tobacco industry.

teachers. Teachers, as human beings, have their own political opinions, which may be difficult to discard at the classroom door. While teachers expect students to cite sources meticulously in their own work, teachers often expect students to trust their judgment of sources without the ability to follow up or locate a teacher's sources. This may lead to contention, especially when one of the few sources that has been identified to students is a known liberal politician like Al Gore.

These double standards for sourcing information touch upon the issue of student resistance and agency in the classroom. In a 2015 interview with Washington Post, one teacher who uses AIT in the classroom noted that he experienced far less student and parent resistance to teaching climate change when he stopped using materials with a clear political connection (like Gore's film), and instead asked students to do the research on their own. "The students were still learning about climate change, but now they were driving the conversation and asking the questions, rather than being told by the teacher what to think...there was less resistance and more buy-in from the students" (Strauss and Berbeco).

Ultimately, the primary problem with focusing on this film—from a youth-centered perspective—is that, inspiring as it may be, the film is old by documentary standards, and practically ancient by scientific standards. The ability for youth to participate in current climate change discussions depends up on access to current information. At the same time, however, their participation also depends upon knowledge of the ongoing political debate surrounding climate change, of which Gore's film is still obviously a part.

Rather than winding down, the future of this film in classrooms seems to be set, since—to the chagrin of conservatives—Gore just released a sequel to this film (An Inconvenient Sequel: Truth to Power) in July of 2017. The film has received 2,716 ratings by the public as of Sep-

tember 2017. Interestingly, the film received its lowest ratings on IMDB.com from viewers under the age of 18 and over the age of 45 (the top and bottom age categories in the spectrum). On average, youth under the age of 18 gave the film a rating of 4.5 out of 10 (Internet Movie Database). Ultimately, the combined package of AIT and its sequel could become a powerful resource in classrooms, because, while the original focuses on problems and consequences, the sequel focuses on solutions, positive developments, and the benefits of change. The trailer suggests that the sequel will provide a counterbalance to the original that will allow teachers to refer to clips of each, thus providing a more well-rounded timeline of climate change developments, and a more complete framing of the problem and its solutions. It could be argued that if youth are to be informed about climate change, then the point is providing access to as much information as we can give them, whether it be political or scientific in nature. Like it or not, Al Gore and his films have become some of the most visible symbols of the climate change debate, both in and out of classrooms. The films helped the nation to realize that students have a real drive to get involved in the environmental movement, and that they should be taken seriously as environmental leaders. With the release of An Inconvenient Sequel, what has become outdated, even stagnant information (demonstrating a lack of inspiring climate change resources and maybe a laziness on the part of instructors) may have the potential to serve as two bookends capping the conversation on one of the most controversial and significant social issues facing today's youth.

There is another side to the popularity of Gore's films, which have become fundamental symbols of the climate change movement in the twenty-first century. Spanning a decade, they may be a vital part of the climate change conversation in classrooms. At the same time, however, the influence of these films has made Gore a fixed part of a the conservative frame for liberal

environmentalism, and that frame is not a positive one. The very presence of Gore within these films may evoke the wrong kind of frame in some viewers, and thus, teachers who use them in the classroom may run the risk of alienating students, parents, and community members entirely. In that sense, Gore's films may be a dead end for driving open-minded classroom conversations about climate change.

CASE STUDY 2: Coal Curriculum, CEDAR, and Scholastic's Ever-Changing Stance on Climate Change

In the third chapter of this project, a selection of Scholastic children's climate change fiction will be analyzed. However, Scholastic's fictional titles are vastly outnumbered by non-fiction educational materials. As the world's largest producer of educational media (Scholastic.com), Scholastic produces a spectacular number of educational books, magazines, and other materials to be used by teachers in the classroom. As stated on the company's website, "Scholastic books and educational materials are in tens of thousands of schools and tens of millions of homes worldwide…" Scholastic's stated mission is to "encourage the intellectual and personal growth of all children" ("About Us"). The company elaborates on these goals by stating that "Scholastic produces educational materials to assist and inspire students…to cultivate their minds to utmost capacity . . . [and] to enlarge students' concern for and understanding of today's world" ("Credo").

The stated goals of Scholastic seem rather commonplace for an educational media company. Perhaps most important for the purposes of this chapter, however, is the following statement: "Good citizens may honestly differ on important public questions. We believe that all sides of the issues of our times should be fairly discussed—with deep respect for facts and logical thinking—in classroom magazines, books, and other educational materials used in schools

and homes" ("Credo"). This last statement tends to attract criticism and create occasional controversy for Scholastic. On one hand, the company has always been open to corporate sponsorship and partnering with companies to create educational classroom materials. On the other hand, some feel that such corporate sponsorship conflicts with Scholastic's goals of providing quality educational materials for youth.

Many of Scholastic's educational materials over the last decade have shown general acceptance of ACC, even encouraging youth to take action against human-caused climate change. For instance, in the April, 2007 issue of Scholastic News,[141] Scholastic journalist Elena Cabral wrote that "scientists confirmed what many people have already guessed: Global warming is happening, and there is almost no doubt that humans are causing it" (4). Furthermore, Cabral empowered children to act with an image of kids happily protesting next to the following article description: "As lawmakers debate what to do about global warming, kids take steps to make a change" (4). This article is generally representative of Scholastic's other climate change materials at the time.

Though the publishing company continued to show moderate support for the ACC consensus in its publications, Scholastic articles on climate change included a few more qualifications and considerations by 2010.[142] For instance, the October 4, 2010 issue of Scholastic News included an article called "Extreme Weather," in which a Scholastic journalist wrote the following two statements:

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[141] Scholastic News and Junior Scholastic are periodicals printed by Scholastic for use in middle and elementary school classrooms.

[142] This could also have something to do with the 2009 scandal known as ClimateGate, in which hacked emails undermined public trust in the Intergovernmental Panel on Climate Change (IPCC). This, in turn, cast doubt on the panel's influential report on ACC. For more information, see www.factcheck.org/2009/12/climategate/ (Henig).

Of course, wild weather is nothing new. Record books tell about huge storms and deadly dry spells dating back hundreds of years. But some scientists say it's unusual for so many weather extremes to take place worldwide in such a short period of time. Many think climate change may be at least partly to blame. (4)

Earth's temperature has changed naturally throughout history. But many experts agree that the recent warm-up is mostly the result of human activity. They say that burning fossil fuels to power cars and create electricity is causing the current warming trend. (4)

While these statements highlight the popular support of ACC within the scientific community, counterbalancing statements seem to support continued debate, as well. For instance, by stating that many experts believe humans are causing climate change, the journalist signals that some experts might feel the opposite.

This debate does fit with Scholastic's belief "that all sides of the issues of our times should be fairly discussed" ("Credo"). However, the debate also fit with some new fossil fuel partnerships developed by Scholastic around the same time. In 2010 and 2011, two Scholastic classroom materials led a handful of nonprofit organizations to suggest that the company was placing its own profits—as well as partnerships with fossil fuel interest groups and corporations—above children's education. The question is, how do we view the responsibilities that educational media companies have to children and schools? How are children framed in discussions of these responsibilities, and how are children served by these discussions and the materials produced by companies like Scholastic?

Scholastic published the first of two controversial materials for the US Chamber of Commerce's Energy Institute (USCCEI) in 2010. "Shedding Light on Energy" was produced for use in 5th through 8th grade classrooms (see appendix H). At the time of the material's release, the USCCEI was fighting regulations that aimed to cap greenhouse gas emissions (B. Bigelow). Critics of the materials suggested that the USCCEI's opposition to these regulations is visible in

the educational materials, which suggests that the nation needs fossil fuels,[143] while also asking students, "What do you think could happen if one of our energy sources was suddenly unavailable (e.g., power plant maintenance, government curb on production, etc.)?" In a 2011 interview, Voorhees quoted USCCEI President and CEO Karen Harbert as saying,

> ". . . the wording of the question was not a specific reference to pending Environmental Protection Agency regulations or the recently lifted offshore-drilling moratorium in the Gulf of Mexico."
> But she added that the Chamber has no problems if kids talk about them on the playground.
> "I will be very disappointed if the environmental community doesn't see this as valuable . . . As a nation, we all want a better-educated populace." (Voorhees)

The "Shedding Light on Energy" program was not the only fossil fuel-related sponsorship to land Scholastic in hot water. Only one year later, in 2011, Scholastic created the "United States of Energy" program for the American Coal Foundation (ACF) for the estimated sum of $300,000 (see appendix I).[144] The ACF has featured educational materials for classroom use on its teachcoal.org website for years prior to its partnership with Scholastic, but without widespread success. As stated in a blog post by the executive director of the ACF, Alma Hale Paty, the foundation's connection with Scholastic allowed them to get their educational materials into the hands of 66,000 teachers nationwide, whereas they were only able to reach about 7,000 prior to the partnership. Furthermore, Hale Paty boasted that post-partnership, the traffic on teachcoal.org increased from 8,000 monthly visitors to over 24,000 (qtd. in Sheppard).[145] Hale Paty

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[143] One example that illustrates the display of need is the following statement: "Many people feel as if they couldn't live without their cars. Petroleum (oil) is the leading energy source for transportation in the United States" (Scholastic 4).

[144] Please note that—while several news articles were unable to verify the amount of ACF's payment to Scholastic, and Scholastic refused to comment on the amount received—Washington Post printed this sum. Washington Post did not identify its sources for this amount.

[145] Please note that this blog post (originally seen on coalblog.org) is no longer available online, and was removed at Hale Paty's request based on the controversy surrounding the "United States of Energy" materials. These statements by Hale Paty were confirmed in multiple news articles.

also noted that the partnership was beneficial because "Over 90% of America's K-12 classrooms use Scholastic products," Paty wrote. "Four out of five parents know and trust the Scholastic brand" (qtd. in Sheppard).

In many respects, the "United States of Energy" program is quite similar to the "Shedding Light on Energy" program. While "The United States of Energy" focuses more tightly on the coal industry, both programs highlight an adherence to national educational standards, and begin with the stated goal of educating students about a variety of energy sources, including fossil fuels and renewables. Both programs also emphasize a perceived need for fossil fuels in America, by providing ample statistics on the sheer amount of fossil fuels used in the United States, and the fact that such fuels are used to power the homes, schools, and communities in which children live (thus suggesting that without fossil fuels, children would be denied electricity). One of the largest criticisms of "The United States of Energy" was its failure to identify either the strengths of renewables or the disadvantages of coal, despite its stated adherence to the following educational standard: "Knows that different types of energy (e.g., solar, fossil fuels) have different advantages and disadvantages and that regardless of the source energy, the technological design should attempt to maximize the use of it" (Scholastic 1).

The framing of this controversy says a lot about both perspectives on climate change and perceptions of children, childhood, and education. In some instances, Scholastic and its project partners (ACF and the USCCEI) focus on children's inability to understand environmental debates. For instance, when asked why the materials fail to highlight the disadvantages of fossil fuel extraction and use, Scholastic's Vice President for Corporate Communications stated that "Since the program is designed for elementary schoolchildren, the materials do not attempt to cover all of the complex issues around the sourcing and consumption of energy. Rather, they fo-

cus on grade-appropriate information about the geography of energy sources in the

U.S." (Sheppard; Schwartz). While Scholastic acknowledges the grade four educational standard

of highlighting the advantages and disadvantages of different types of energy sources, the com-

pany's statement suggests that it does not believe elementary schoolchildren are actually ready

for such information. In contrast, statements from Scholastic's energy partners—and Harbert in

particular—suggest that children can and should be a part of energy-related discussions. As

Harbert stated, "I think it's important that children have the chance to apply what they are learn-

ing to real-world settings . . . It wasn't an attempt to drive to that issue, but we also weren't try-

ing to dodge the issue" (Voorhees). In this statement, Harbert suggested that children should

be permitted to enter the discourse surrounding America's energy use, and—if they so choose—

the regulation of fossil fuels in particular. Within these two statements, there is a split view of

children as having a lower capacity for "complex issues," on the one hand, and having the right

to enter conversations about the "real world" on the other.

     Admittedly, statements from Scholastic and its project partners were limited following

this controversy—largely because representatives of these organizations chose to release a blan-

ket statement about the materials to the press, rather than granting interviews. However,

Scholastic's framing of kids in statements about these controversial publications clearly shows a

disconnect with their statements about kids and fossil fuels in earlier publications. While Scholas-

tic's publications between 2007 and 2009 empowered youth to take action against anthro-

pogenic climate change (with fossil fuels identified as a large contributing factor), Scholastic's

statements regarding the controversial publications suggests that children cannot handle com-

plex information about fossil fuels as related to climate change.

Despite Scholastic's relative silence about the controversial materials, representatives from the non-profit organizations fighting Scholastic's fossil fuel materials were quite vocal. Multiple articles—published in NY Times, CNNMoney, HuffPost, Washington Post, and others—included statements from the three organizations that challenged Scholastic's partnerships, including The Campaign for a Commercial-Free Childhood, Rethinking Schools, and The Center for American Progress. While these organizations did not frame children as incapable or unintelligent, they did largely frame them as powerless. As stated by Susan Linn, Director of the Campaign for a Commercial-Free Childhood, "Promoting 'client objectives' to a captive student audience isn't education…It's predatory marketing. By selling its privileged access to children to the coal industry, Scholastic is commercializing classrooms and undermining education" (Lewin; Sheppard). Within this narrative, Linn and others set up a metaphor in which Scholastic and its partners are framed as villains who have overtaken the American schools system and taken children captive. One can almost imagine the American Coal Foundation twisting its mustache as Scholastic counts a fat stack of cash earned by selling children's educational rights. This depiction of Scholastic, ACF, and USCC is visible in several adjectives and verbs used to describe Scholastic and its partners, including: "predatory," "undermining," "slick," "dirty," "abuse," "fear-mongering," "brainwashing," "selling elementary school students." Children are actually referenced surprisingly little in statements released by these nonprofit organizations; generally, the repeated sentiment is that children "deserve a commercial-free childhood" and unbiased education.

Beyond the words of key players on each side of this controversy, reporters do betray some of their own bias (which, to their credit, is impossible to avoid even in media that strives to maintain the utmost objectivity). Overall, the news media largely seemed to support the envi-

ronmentalist stance in this controversy. As with Scholastic and its partners, however, the news

media's framing of both the controversy and the children involved was subject to change in a

variety of instances. Indeed, this was one of the primary concerns identified by nonprofit groups,

teachers, and the news media, which framed the discussion of these materials as the intentional

misleading of vulnerable student populations.

For many, the affiliation of Scholastic with fossil fuel interests was so appalling because

of the trust that parents and guardians place in schools and educational companies. According

to nonprofit organizations, by allowing biased educational materials amounting to a sales pitch

into the classroom, both Scholastic and the teachers who use its materials are essentially betray-

ing that trust. Both Scholastic and others try to pass the buck on this one. Scholastic's Kyle Good

suggests that Scholastic is not driving the commercialization of classrooms, since it is up to a

teacher's discretion whether to use Scholastic's materials or not (Lewin). As stated by research

analyst Faith Boninger, however, Scholastic is so trusted by American teachers and parents that

its materials may be adopted without great scrutiny (Young). Furthermore, the CCFC suggests

that some teachers may not have a choice but to use Scholastic's corporate-sponsored materials

(often called structural education materials or SEMs for short), which are provided to teachers for

free. As the CCFC states, "desperate teachers in underfunded schools use SEMs as a last resort.

Certainly this is true, and SEMs are most prevalent in poorer school districts" (Canon).

So, are teachers actually using these materials in the classroom? Unfortunately, this is a

question that remains unanswered. I did locate the testimonies of several teachers who continue

to use Scholastic's pro-ACC materials from previous years, though I was unable to locate testi-

mony from any teachers using Scholastic's energy materials. While this could be an indicator that

the materials are unpopular with teachers, it is also possible that teachers are merely reluctant to publicly discuss the use of such controversial materials.[146]

Examples of classroom use may be lacking where Scholastic's coal curriculum is concerned, but the investigation into Scholastic's energy materials did yield a wealth of related examples. The media attention that was kicked up about Scholastic's fossil fuel partnerships also placed a spotlight on some other fossil fuel partnerships within schools, including a program funded by The Coal Education Development and Resources Foundation (known as CEDAR). The nature of this program necessitated an extensive record of teachers' use of coal-related classroom materials, which allowed for a more in-depth exploration of CEDAR materials than those produced by Scholastic. Teachers willing to use Scholastic's energy materials could arguably have similar potential to participate in a program like CEDAR (based on lack of funding, region, etc.), and thus, I endeavored to analyze some of the lesson plans created for this program.

The acronym selected by this foundation—a strong, vibrant symbol of a thriving natural world—is perhaps the first sign of its intent to rebrand the coal industry and its connection to nature. The foundation's website presents plenty of other expressions of this goal, as well. While a nationally-recognized educational media company like Scholastic may need to present a more objective stance on issues related to climate change and the fossil fuel industry, the CEDAR homepage is explicit about the organization's purpose "of improving the image of the Coal Industry" and "Securing coal's future TODAY by educating our leaders TOMORROW" (emphasis in original). In a sense, CEDAR hopes to re-frame the coal industry, and it is pinning a great deal of those hopes on teachers and students living in coal-producing states. The organization offers financial incentives to teachers who are willing to teach coal units in their classrooms, with an

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[146] In contrast, I located the testimonies of several teachers who seem to be using Scholastic's pro-ACC materials from previous years.

emphasis on lessons that "investigate and identify the causes of the significant decline in the

demand for coal as an energy source, and explore possible solutions to those causes, or possible

new uses for coal, that could enable the industry to regain its prominence in a thriving industry

within our region" (CEDAR, Inc. "Home"). Thus, CEDAR seems to hope for nothing less from

such partnerships than a solution to the industry's decline.

Despite these explicitly-stated goals, the program's guidelines suggest that teachers

who produce biased lessons will be turned away. The following is an example of a biased unit

goal, as provided on by CEDAR in its video guide on submitting a grant request: "Students will

describe how Obama's war on coal has destroyed the economy of Eastern Kentucky" (CEDAR). A

CEDAR narrator explains that the lesson goal is biased because "It's telling students what to

think. The goal of CEDAR isn't to bias students toward a coal economy, but to give them the

tools to think through issues and problems and begin to develop ideas and solutions" (CEDAR).

Aside from purpose statements and guidelines for participating teachers, the CEDAR

site features educational videos and materials, student projects, and the winning coal units cre-

ated by teachers in three grade categories over the last decade.[147] An examination of the win-

ning units in each the kindergarten to fourth grade and fifth to eighth grade categories suggests

that CEDAR is aiming to avoid negative biases (either for or against the coal industry) in the

lessons it funds. While it might be expected that negative language about the coal industry

would be discouraged, explicit negativity about oppositional viewpoints (like "Obama's war on

coal") are also frowned upon. Instead, CEDAR seems to be looking for lessons that reframe coal

in purely positive terms. Opposing viewpoints are excluded altogether, and the attributes of the

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[147] The winners of CEDAR's Coal Study Unit Program are listed on the CEDAR website, for all academic years between 2006-2016, in three separate grade categories. The winning lesson plans can be found at the following address: http://cedarinc.org/teacher_CSU.htm

coal industry are the typical focus (often within units that span a month or more). Take as an example the following Kentucky teacher's introduction to a first-place 2015 unit on coal:

> What is coal? A black rock, a fossil fuel, and a non-renewable resource are all possible explanations to the question I just asked. However, the answer I was looking for is, "a gift". Coal is a gift to us and a gift to our leaders of tomorrow: a gift that we can see, touch, and hear every day while growing up in the Coal Fields. Coal is a BIG deal in our little town. No matter if it is looking out the windows of our houses or driving down the road, the presence of coal surrounds us. It is a way of living and a life for my students and their families. They know that daddy mines it, that grandpa hauled it in his "big rig", and that occasionally naughty kids will get it for Christmas, but just how extensive is my students' knowledge of coal? (Anonymous 2)[148]

While the teacher who wrote this unit was likely exaggerating any personal affinity for coal in order to increase his or her chances of gaining the top prize of $3,000, this introduction points to what might be vastly different perspectives of the fossil fuel industry and environmental issues in American Coal Country. As the passage suggests, this teacher expects students to have family members who work for the coal industry, and the town's dependence on coal is made very clear. The teacher begins the unit by gauging students' knowledge of coal, stating that "27% of my class had a deeper knowledge of where coal came from and those students were the daughters and sons of coal miners" (Anonymous 6). Thus, more than a quarter of the class has a parent working in the coal industry. This was not uncommon. The teacher who produced the 2016 K-4th grade winning unit sent a survey home to parents asking whether at least one parent in the home worked in coal mining either presently or in the past. The featured responses demonstrated that a significant portion of the class had parents with a coal-mining background.

 With so many students living in coal-mining towns, and with coal-mining parents or grandparents, it is no wonder that these teachers frame the coal industry differently than those teachers who complained about Scholastic's coal-related materials (which were, in comparison,

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[148] Please visit the following link to see this teacher's entire lesson: http://cedarinc.org/pdfs/CoalStudyUnits/01-11-27-15.pdf

far less explicit in the expression of biases toward fossil fuels). Beyond identifying coal as "a gift," the lessons in these units suggest the following: that electricity cannot be produced without coal, that the survival of coal-producing states— thus, the students and families living in those states—depend upon coal, that most of the things that students want and need in life are made with coal or coal by-products, and that most of the professions students might want to enter also depend upon coal (since most professions require electricity, and electricity is made with coal). These units ultimately present coal as a necessity of life, and as a way of life in itself.

Within these units, teachers do in fact attempt to re-frame the coal industry, shifting away from environmental concerns and other problems of the industry entirely. In most mainstream media outlets, it is rare to see a discussion of the coal industry without explicit connections to pollution, health risks, and climate change. In contrast, there seems to be no trace of such problems in CEDAR's winning coal units. Rather, the coal mining industry is depicted as an environmental hero of sorts, since the process of post-mining land reclamation restores the land to "how it was or better" (see student projects, appendix J). These lessons—and examples of student work—suggest that restored mining sites have been transformed from spaces with little practical use into public parks or fishing ponds. The winning lessons do not identify potential problems related to climate change. If anything, the coal mining process is touted as a net benefit for the environment, and especially for the community.

This does not mean, however, that these coal units avoid problem frames altogether. At some point in each unit, teachers turn their focus to the decline of coal industry jobs and the plight of coal miners and their families. In the aforementioned survey of parents, one teacher sought to find out which parents working in coal had been laid off from their mining job (the included examples suggested that the number was substantial). Multiple student projects in the

annual CEDAR Coal Fair[149] warned against the ruin of entire communities as a result of lost coal-

mining jobs. In both lessons and student work, coal miners were presented as America's unap-

preciated heroes. While some student projects included illustrations of happy, hard-working fa-

thers and proud descriptions of their accomplishments, others lamented stolen jobs and de-

stroyed communities. Although there was no explicit evidence of blame in teachers' lessons,

teachers did include occasional student examples that identified blame clearly. For instance, one

student submitted a review of a March 2016 Breitbart News article, entitled "Hillary Clinton

Promise: We're Going to Put a Lot of Coal Miners and Coal Companies Out of Business."[150] It is

unclear whether this student located the article independently. However, his review of the article

ends with a clear opinion about coal jobs and threats to the industry's decline: "Hillary Clinton

should NOT! be president. We need COAL." This student's review—and the article itself—con-

tains a fair amount of reframing. The context of Clinton's statement—which highlights the need

to protect the environment from coal mining, as well as a plan for placing coal miners in new

jobs—is absent from both the article and the review. Instead, the focus is placed on the immedi-

ate problems faced by coal miners and coal country, and those who are seen as to blame for

these problems.

In nearly every example of winning lessons and student work posted on the CEDAR

website, the environment seems to be erased from the equation. As much of this project

demonstrates, the absence of the environment in coal country education makes sense, especially

when that education is subsidized by coal. After all, we are likely to ignore information that works

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[149] This fair seemed to be a large and significant event at many of the winning schools. Please see the following CEDAR link to learn more about the CEDAR Coal Fair: http://www.cedarinc.org/coal_fair.htm (CEDAR).

[150] See this article, and a clip of Clinton's comments in context, at the following link: www.breitbart.com/big-government/2016 (Leahy).

against our worldview and our own self-interest (Etman; Lakoff; Sinclair). The small, unofficial sur-

veys conducted by teachers on the CEDAR site show that over one-quarter of students have a

direct familial connection to the coal industry in some classrooms. Teachers proclaim that "Coal

is a BIG DEAL in our little town." And they aren't wrong. According to one Kentucky news

source, Eastern Kentucky schools were set to lose over four-million dollars as a direct result of

coal industry decline in 2017 (Honeycutt-Spears).[151] Coal country teachers and students seem to

demonstrate deep fears about how the decline of coal will impact them. It is quite possible that

undeniable proof of coal's connection to catastrophic climate change would force coal country

inhabitants to throw in the towel on a coal-based economy that spans generations. That is why—

at least until lucrative alternatives for coal-dependent economies become the focus of dis-

course—perhaps no amount of proof could ever be enough. When we encounter information

that runs counter to our core beliefs and values, we have no choice to either dismiss the new

information as false, or find a way to make it conform with our existing worldview (Lakoff; Ent-

man). Students and parents in coal country often depend directly on industry jobs, as do the

communities that they live in. In large part, even the teachers in these regions depend upon the

success of coal, both through the tax dollars that it brings directly to schools, and, in the exam-

ple of CEDAR, through grant-money provided directly to teachers of coal-curriculum. Thus, there

is little short-term incentive to acknowledge the ACC consensus as legitimate in these regions.

And, as studies show, while people verbally affirm the importance of focusing on long-term

goals and benefits—such as saving for retirement—they more often behave in ways that priori-

tize short-term goals and benefits—such as a new car. According to a study by Frederiks, Sten-

ner, and Hobman, "There is often a sizeable discrepancy between people's self-reported knowl-

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[151] See the complete article at the following link: www.kentucky.com/news/local/education/article131512139.html (Honeycutt-Spears).

edge, values, attitudes and intentions, and their observable behaviour—examples include the well-known 'knowledge-action gap' and 'value-action gap'" (1385). This is especially true when long-term benefits do not adhere to a person's core system of beliefs or values.

This perspective was extensively conveyed in two articles written about climate change education in a coal-dependent Wyoming county.[152] According to these articles, the inhabitants of Gillette County (parents, educators, and students alike) are very aware that the stability of their schools and communities are deeply impacted by the success and generosity of the coal industry (DiBiasio; Crane-Murdoch).[153] While all of the Gillette County teachers featured in DiBiasio's article reported a personal belief in ACC consensus, most chose to teach students the debate. Some of these teachers acknowledged that the debate model was strongly supported by most local parents and coal industry officials. They also expressed the personal view that teaching consensus would be tantamount to pushing their individual beliefs and opinions on students and teaching them to listen rather than think (DiBiasio). Only one of the featured Gillette County teachers chose to strictly teach ACC consensus, but she ultimately ceded to parental pressure and incorporated a documentary with the opposite perspective into her lessons as well (DiBiasio). Finally, Gillette County teachers' reports about student-openness to climate change lessons was mixed, though multiple teachers noted that students tended to carry a bias toward their parents' perspectives and a perception of environmentalists as irrational. All three of the students interviewed in DiBiasio's article emphasized that they wanted the opportunity to learn

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[152] It should be noted that—while rather dated (2011)—these were some of the only articles that I was able to locate with a focus on coal-state teachers' perspectives on climate change. This may point to 1) a greater rate of climate change skeptics amongst the science teaching community in coal states, 2) external pressure on coal-state teachers to avoid the discussion of climate change, or 3) a combination of the two.

[153] See the full articles at the following links:
- www.gillettenewsrecord.com/news (DiBiasio).
- www.hcn.org/blogs (Crane-Murdoch).

about climate change from their teachers without being told what to believe. As one student said, "I hope Winland [science teacher] explains why it could be happening or why it's not in a way that lets us figure it out on our own. I don't want him just telling us how it is . . . I'd like to hear both sides" (DiBiasio).

While these articles clearly demonstrate reason for bias in Gillette County inhabitants, they also allude to teachers' inner-turmoil about climate change curriculum. Teachers acknowledge both the "generosity" and pressure coming from the coal industry, and some show a level of gratitude toward that industry. Furthermore, the "teaching consensus as an affliction of personal opinions" perspective suggests that the issue of climate change is a matter of opinion, and this is telling in itself.

This exploration of coal curriculum is valuable because it hints at some of the underlying hopes and fears that feed into fossil fuel support and climate change skepticism, which—in at least a few cases—seem to dominate entire communities and schools. While the fossil fuel industry and conservative climate skeptics get plenty of time in the mainstream media, it is rare to hear the perspectives of individual teachers, students, and parents from communities and schools that benefit directly from coal industry success. This limited exploration of coal curriculum hints at some of the underlying hopes and fears that feed into fossil fuel support and climate change skepticism, and for that reason, I believe it has value. In these locations, teachers may have little choice—and sometimes little desire—to teach anything beyond climate change as a topic for debate. Until we can address the concerns of kids and families in coal country, it seems that climate change is most likely to be left out of discussions altogether.

CASE STUDY 3: Heartland Institute/izzit.org:
The Unstoppable Distribution of *Unstoppable Solar Cycles*

In 2008, the non-profit Heartland Institute began sending out free educational materials to teachers nationwide, including a twelve-minute video titled Unstoppable Solar Cycles (USC). Years later, these materials have been received by tens of thousands of teachers,[154] with the stated goal of getting the materials into the hands of every science teacher in America (Stager; Worth). The Heartland Institute's educational mission is not always well-received by the public or the news media, however, and complaints about the materials still occasionally surface in news media coverage in 2017. Some politicians and nonprofits urge teachers to go as far as shredding Heartland materials so that climate denying teachers will not find them in the trash and use them in the classroom (Worth). But what could possibly be so objectionable about a nonprofit organi-zation's goal of providing the nation's science teachers with free educational materials?

For a start, The Heartland Institute isn't just any nonprofit organization. According to their website, "The Heartland Institute is one of the world's leading free-market think tanks . . . a national nonprofit research and educational organization. It's mission is to discover, develop, and promote free-market solutions to social and economic problems" ("About Us"). The organization is frequently under fire for assisting powerful industries—like so-called Big Tobacco and Big Oil—in campaigns to block industry regulation and refute reports of public harm. Heartland Institute acknowledges the frequent public disapproval of their organization, stating that "because we are effective, we have been the subject of unfair criticism" ("About Us"). The effectiveness of this conservative think tank cannot be disputed, and proponents applaud the organization for trying to uphold process of scientific inquiry by questioning anthropogenic climate change as "settled

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[154] Some estimates suggest that as many as 200,000 teachers have received these materials in the US See www.washing-tonpost.com/news (Fritz).

science" (Monckton; Saxena). As both Heartland Institute materials and Fox News articles note, the nature of scientific inquiry is to keep questioning scientific assertions, and to consider all options (Legates; Reilly). The organization has a substantial budget—one that would allow them to distribute materials to teachers nationwide. Critics of the organization cite generous financial support from fossil fuel interests like the Koch brothers as a reason for public scrutiny into the impartiality of the organization's research (Gillis and Kaufman).

The Heartland Institute—like other organizations with similar interests—tends to avoid language that overtly places them at odds with environmental objectives. For instance, in explaining the organization's purpose, the institute's website proclaims that "We focus on issues in education, [and] environmental protection" ("About Us"). The evocation of the term "environmental protection" is interesting. By using the word protection, however, the Heartland Institute evokes images of itself as a defender of the natural world, regardless of its position on environmental matters.

The materials being dispatched by Heartland include a cover letter from the organization's director (see appendix K), along with a book entitled Why Scientists Disagree About Global Warming, and a DVD produced by the educational media company, Izzit.org. While the book was intended to be read by teachers, Unstoppable Solar Cycles was meant to be used in the classroom and target students specifically.[155] Izzit.org's description of this thirteen minute video makes a specific claim, followed by questions for consideration:

> What is the role of carbon dioxide in warming? The best available records of temperature and atmospheric CO2 over the past 650,000 years indicate that the earth's temperature always rises first, followed by a rise in carbon dioxide. If a warmer earth leads to increased levels of CO2—and not the other way around—can humans' use of fossil fuels be

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[155] View the video at www.youtube.com/watch?v=zDOgWeTAas0&t=16s (Heartland Institute).

the cause of global warming? Shouldn't this critical question remain open to scientific inquiry? ("Unstoppable Solar Cycles Product Description")

Ultimately, this video suggests the need for an open and ongoing debate about climate change within schools and society more generally, as well as the consideration of theories beyond anthropogenic climate change. As the teenage narrator proclaims at the end of the video, "We're urged to accept just one theory, that human-generated CO2 is the principle cause of global warming. Yet these and other scientists point to other possible causes." USC features two scientists—Dr. David R. Legates of the Center for Climate Research at the University of Delaware, and Dr. Willie Soon of the Harvard-Smithsonian Center for Astrophysics—who support Heartland's call for increased debate with claims that counter popular climate science. The primary claim of the video is that natural cycles on the sun may be the primary driver of climate change, rather than human use of fossil fuels. The video's scientists do not stand by any particular climate change explanation as fact, however; rather, they promote the continued questioning of climate science. As Dr. Legates puts it, " . . . the idea of science is that you're really supposed to be skeptical, so there's always a quest to verify what we know to understand that we haven't made a mistake, and that we continue on and develop science. If we close our mind, if we close the doors, we are now shutting ourselves out from the real truth, which is what science is about after all." The video's narrator expands upon statements like these, suggesting that no action should be taken against climate change until all the facts are in. After all, she concludes, "We need to encourage scientists to consider every possibility. We need to get this right."

This video has certainly created a debate within the public sphere. All over the country, news outlets, teachers, politicians, and parents have weighed in on the distribution of this video and its content. While some praise the video for providing solid counter-evidence that balances the climate science playing field, others complain that the video passes off junk science as a le-

gitimate educational resource that may be used by teachers who are politically conservative or less informed about the subject matter (Visser; Saxena; Strauss).

In fact, much of the online discourse surrounding this video emphasizes such fears. Within this study, sixty-four reactions to this material were collected from popular news sources, teacher blogs, and forums (including one student, five parents, and fifty-eight teachers).[156] The vast majority—eighty-four percent—were negative,[157] with the DVD often being likened to disgusting trash, a contagious disease, or a dangerous weapon. In statements made by teachers, for instance, the materials were often to an object or substance that typically elicits feelings of disgust. Some teachers labeled the DVD as "junk" or "bullshit," and a few even used emoticons to symbolize nausea in response (Visser; Freeman).[158] In a range of blogs and online articles, statements by politicians, scientists, and teachers encouraged educators to immediately throw the offending materials in the trash—or rather, the recycling bin—and "help stop the spread" (Ekwurzel; Freeman; Saxena). In this last statement, the DVD is likened to a contagious disease that is quickly sweeping through American schools.

Journalists are certainly not exempt from using these kinds of descriptions. In fact, both Washington Post and NY Times evoke the 'spreading disease' metaphor as well. NY Times reporters write that "Efforts to undermine climate-science instruction are beginning to spread across the country" (Gillis and Kaufman) while a Washington Post reporter asked, "Will Global Warming Skepticism Spread to Schools?" (Plumer). On separate occasions, Washington Post and

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[156] It should be noted that of the reactions from teachers, eighteen were posts made by teachers on their blogs, seventeen were from teachers quoted within top news sources, fifteen came from self-identified teachers who responded to forums following an article from a top news source, and eight came from company-selected reviews on the Izzit.org website.

[157] Those that were in favor of the video included six teachers (five of which were featured on the Izzit.org website), three of five parents, and one student (the only student response that was located, in fact).

[158] 🤢

NY Times reporters also describe the DVD as a dangerous weapon that could be misused. As a Post reporter wrote, "there will be some teachers who are unfamiliar with the sources of this material, and they...may present it to their students as fact" (Fritz). Another NY Times reporter lamented that "if only a small percentage of teachers use it as intended, they could still mislead tens of thousands of students with it year after year" (Stager). Especially in this second statement from NY Times, Unstoppable Solar Cycles is described more like a weapon than a DVD.

In fact, amongst most liberal news sources, the framing of Unstoppable Solar Cycles as something disgusting, contagious, or dangerous was quite common in discourse. The common thread between these metaphors is a fear of contamination or harm stemming from contact with the material. Similar to the framing of Scholastic's fossil fuel materials, the creators of this DVD are depicted as villains who plot to disseminate their DVD to overworked, under-trained teachers and ultimately infect an entire nation of children. If the Heartland Institute is the super-villain in this story, Dr. Soon and Dr. Legates are its lackeys, with multiple stories pointing to Dr. Soon's acceptance of more than a million dollars from fossil fuel interests in trade for favorable research, amongst other scandals (Gillis and Schwartz; Koomey and Romm; Montgomery; Sheppard).[159] [160] Most liberal-leaning news sources did not hold back on casting both blame or moral judgment on either The Heartland Institute or the scientists featured in the video who were seen as intentionally deceptive. Most liberal-leaning news sources and the ACC supporters within seemed to pose the solution of remaining vigilant against such attacks, and either throwing Heartland materials away or using them to teach students about corrupt science.

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[159] Articles also note that—although Heartland proponents often connect him with Harvard University—Dr. Soon has never worked for Harvard. Rather, he works for The Smithsonian, which shares a facility with Harvard. The Smithsonian reportedly does not share Dr. Soon's views about climate change.

[160] Though Legates' ties to special interests are not certain, many of these same articles do cast doubt on both the legitimacy and sincerity of his research.

The very little coverage that USC received in more conservative news sources frames the dismissal of the materials as an injustice to truth-seekers and children, who—according to Heartland Institute President Joseph Bast—"would be better served by letting them know a vibrant debate is taking place among scientists on how big the human impact on climate is, and whether or not we should be worried about it" (Saxena). Though Bast is quoted frequently by conservative news sources, the discussion of Heartland's educational goals and materials is limited to four articles,[161] with only one (in the Conservative Tribune) mentioning these materials specifically. All four of the articles depict The Heartland Institute and the scientists featured in their materials as righteous and hard-working truth-seekers who are being unjustly attacked by those who wish to brainwash children with a single, inaccurate viewpoint. For instance, Dr. Soon and other featured scientists are described as "humble," "distinguished," and "blameless," while attackers and attacks upon Heartland's science has been called "a blow against scientific freedom of expression," a "corrupt assault on justice," "fanatical," "pitiful," and even "mean-spirited" (Bast; Monckton; Saxena). The majority of the articles suggest that such attacks extend to children, with statements such as "our children, unfortunately, are hit right between the eyes…" and that they are being "gleefully brainwashed" (Reilly; Saxena). In one interview, Heartland Institute CEO, Joseph Bast stated that the DVD was designed to "bring real research and real science into the classroom. Teach kids about critical thinking. Let them understand, to try to find the human fingerprint on climate is a big challenge. And it's an exciting quest" (Samuelsohn).

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[161] Two articles were produced by Breitbart News, and focused on defending Heartland and scientists featured in Heartland educational materials against claims about corrupt data. One article—published by Fox News—presented the perspective that children are being misinformed in science classes. A fourth—created for Conservative Tribune—focuses specifically on the perceived injustice of attacks on the educational materials featured in this section.

Ultimately, despite the slew of online discussions about USC's wide distribution, the concerns about its use may not have amounted to much. After extensive searches online, it does not seem that teachers are using these materials as much as they are worrying about people who might use them.[162] While I did locate a small sample of teachers' lessons and second-hand discussions of how the video was used in class, I did not find any first-hand accounts of teachers who explicitly reported using Unstoppable Solar Cycles to teach climate denialism in isolation. In fact, only one location yielded seemingly positive statements about USC from teachers, and that was the Izzit.org website. Attached to a description of the video, Izzit.org provided a selection of eight teacher-reviews.[163] Overall, the majority of these reviews framed the video as a refreshing—and much needed—counterpoint to the settled science perspective. According to one reviewer, USC "truly deepen[ed] their understanding of the scientific process [by providing] opportunities to practice skepticism" (see appendix L). Those reviews that didn't overtly celebrate the film still expressed appreciation for the video, which "challeng[ed students] to think" and "help[ed] to spur on great conversations. Five out of eight teacher reviews referenced climate change as a debate, underscoring the need to present both sides.

Beyond Izzit.org's own website, most teacher reactions to the video were negative. While many teachers merely noted on forums that they received USC and planned to throw it out, and many others were brief references on forums, twelve more extensive, first-hand teacher

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[162] It should be acknowledged once more, however, that free materials like these may be used more frequently in underfunded schools or more impoverished communities with lower access to computers. In such schools and communities, teachers may have fewer practical reasons to post lesson plans online.

[163] It is likely that these reviews were hand-picked by Izzit.org and that unfavorable reviews were excluded from the site. Some teachers reported that they were required to provide feedback on the material after using it, as a condition of receiving the material free from the website. It may also be relevant to note that those teachers who received the video directly from the Izzit.org site sought the video out themselves, rather than receiving an unsolicited copy from the Heartland Institute. 63% of the reviews on this site were posted by teachers in consistently-conservative states (Idaho, Georgia, Texas, and Louisiana).

accounts of classroom use were turned up in this research.[164] Three-quarters of those teachers

using Unstoppable Solar Cycles reported doing so to encourage student debate about climate

change, and almost half asked students to watch the video in conjunction with a film conveying

the opposite perspective (i.e. An Inconvenient Truth or Carbon Nation). It is clear from some of

the lessons posted online that teachers are aware of how controversial it is to teach climate

change as a debate. Take for instance the following exchange between teachers in an online fo-

rum in 2016:

> Corvin28: I'm thinking of doing a compare contrast exercise something like watching An Inconvenient Truth AND Unstoppable Solar Cycles and having the kiddos examine the claims made by each. I'm in my second year and would like them to check things out themselves. Have any of you done something like this?

> Orbital: Have you done anything first on critically assessing claims? Without some (fairly significant) practice in identifying supported and unsupported claims, and understanding of what evidence is and isn't considered scientifically reliable then this has the potential to be a really difficult task to make succeed.

> Antoine: Not only this, but it also has the potential to significantly misrepresent the actual scientific stance on the issue. It's not a 50/50 issue, and both sides should not get equal representation. But, there are enough echo chambers (as u/OrbitalPete suggested) that it would be pretty easy for students to conclude that the issue is undecided.[165]

This brief discussion between teachers further demonstrates the general concerns that

the teaching community has about teachers who teach the debate in a careless fashion. There is

some indication that even those teachers who choose to teach the debate are aware of the con-

cerns of that community. For instance, another teacher posted her USC lesson online with the

following disclaimer and explanation for its use:

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[164] It should be noted that eight of those first-hand accounts were hand-selected teacher-feedback statements about USC on Izzit.org's website. The other four accounts were lesson plans shared by teachers on their websites, blogs, or teacher forums. All of these can be seen in appendix L.

[165] View the complete forum exchange at the following web address: https://www.reddit.com/r/ScienceTeachers/comments/3sylc3/climate_change_9th_graders_ready_for_denial/ (Reddit "Climate Change").

> I feel like I should point out that I completely disagree with the message behind this video, that the sun is the primary driver of climate change; however, that is what makes this video a great resource. As students conduct their research, almost all of what they will find argues that human activity, specifically in regard to greenhouse gases, is the main cause of climate change - there is no shortage of information on this topic. Unstoppable Solar Cycles is a great resource to use to introduce students to the real debate behind climate change: what is the cause?

> FAIRLY REPRESENTING THE ISSUE: Trust and Respect
> My brother is adamant that solar output is the cause of climate change and he will not even consider any other argument having found the one that best fits his point of view. He would be proud that I am exposing students to this perspective. Additionally, at Back to School night for our parents, climate change is one of the topics that parents ask about, specifically, "Will you allow students to form their own opinions?"

Many teachers—like this one—seem to see the debate as a means of educating students about an important, yet controversial issue in a way that appeases adults on both sides. In her disclaimer before explaining the unit, the teacher also demonstrates some level of defensiveness about her approach to climate change education. To many teachers, teaching the debate may seem like the path of least resistance.

Interestingly enough, neither the Heartland Institute, nor Izzit.org seem bothered by this approach. In fact, the letter distributed to teachers by The Heartland Institute does not try to convince teachers that climate change is an outright hoax. Rather, Heartland aims for lower hanging fruit, asking teachers to "consider the possibility that the science in fact is not 'settled'" and encourage debate in the classroom (Jarrett).[166] This approach ultimately creates confusion, which stalls action.

While the Heartland Institute frames their curriculum as a balancing force that helps "bring real science into the classroom [and] teach kids about critical thinking" (Bast), others suggest that attempts to teach anthropogenic climate change as a debate would be detrimental to

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[166] This quote refers to the words written by Lennie Jarrett—Manager of the Heartland Institute's Center for Transforming Education—in a memo that went out to teachers along with the Unstoppable Solar Cycles DVD. See appendix K.

kids' education. According to Mark McCaffrey, former Climate Programs and Policy Director at

the National Center for Science Education,

> At first glance, the idea of teaching both sides of a politically controversial topic like climate change may make sense. Many teachers . . . pride themselves on teaching both sides of global warming. The reasons may vary—there may or may not be overt pressure to present the other side—but Americans' sense of fairness and balance is likely a contributing factor to the phenomenon in which educators feel if they show a pro-climate change video, like An Inconvenient Truth, they are required for the sake of balance to show a video challenging climate change, like The Great Global Warming Swindle or Unstoppable Solar Cycles. In some cases well-meaning teachers will have students debate whether climate change is happening or not. Presenting a false balance is unfair to learners because it distracts from teaching current science and can backfire, generating more confusion rather than clarity, however well intended the effort. (114)

McCaffrey—along with scientists John Cook and Stephan Lewandowsky—suggest that if

students come to school with preconceived notions about climate change as a hoax, it is risky to

expose them to media with similar perspectives. This is because such media may only reinforce a

student's beliefs. Once again, after all, we often adopt the frames that fit our worldview, and

dismiss those that do not (Entman; Lakoff). This is what cognitive scientists call "confirmation

bias," or "the tendency to take in any kind of data that confirms our prior convictions, and to

disregard data that does not conform to what we already believe" (Sharot). Rather than risk confirmation bias through the discussion of both sides of the issue, McCaffrey recommends reminding argumentative students that the classroom is a place for scientific evidence, that they should

be open-minded, and they will likely be quizzed on the information that is presented to them

(117).

There are other reasons that this approach is risky. When teachers present ACC as a debate in order to honor all perspectives and approach the issue fairly, they frequently do so by

exposing students to two opposing media arguments (for instance, An Inconvenient Truth and

Unstoppable Solar Cycles). Some cognitive scientists suggest that this kind of approach is haz-

ardous because of what is called the "equality heuristic," which is the tendency of the human brain to give equal weight to all opinions. As suggested by cognitive scientist Tali Sharot, "different people have different expertise, and it is better to put more weight on [the perspectives of] people who are more knowledgeable or have more expertise in the domain that we're making the decision in." Instead, Sharot says, when people need to make a decision—perhaps about a social issue like anthropogenic climate change—"they will get the opinions of quite a few individuals, and then tally them up, and that's how they make the decision, instead of actually using the person...who has more knowledge and expertise" (Sharot). Thus, if two opposing climate change videos are shown to students, those students (or anyone else, for that matter), may be likely to give each source equal weight in making a decision about ACC, even if only three percent of all climate scientists agree with the ACC-denial argument. In this way, a well-meaning teacher can inadvertently create a sense of false balance between the two perspectives, which could trigger confirmation bias in those with preconceived, anti-ACC stances, and the equality heuristic in students who have less exposure to the issue or remain undecided.

While McCaffrey and Sharot certainly make good points about the risks of reinforcing certain perspectives. After all, framing research clearly asserts that increased exposure to a frame tends to reinforce that frame (Lakoff 1; FrameWorks "Framing" 4). However, I would also argue that a failure to acknowledge such debates in discussions with students is a naive underestimation of those students. Much research shows that youth do not merely soak up whatever information they are given (Aubrun and Grady; Frameworks Institute; James and James; Notten and Kraaykamp). Many students will likely encounter USC outside of school—as it is recommended

by parents, churches, and others on the web, and is freely available on YouTube.[167] To think oth-

erwise is to assume that youth do not exhibit agency within the learning process, that they do

not collect information about important issues on their own, or that they aren't given information

outside of school. We know this to be false. In fact, studies show that youth get the bulk of their

information about climate change on the web, often through self-motivated searching (Strife 42).

I also question McCaffrey's reaction to students who may come from "politically or reli-

giously conservative families" (117). McCaffrey suggests that teachers respond to these students'

counter-claims about ACC by saying that "we are here to learn about what scientific evidence

says about the planet," or suggesting that students keep an open mind. However, this response

seems potentially risky, as well. While those who teach the debate risk confirmation bias and the

equality heuristic, other studies suggest that—when students are silenced by teachers who dis-

miss their beliefs as unworthy of discussion—students may either resist the teacher's information

more strongly, or disengage from classroom learning entirely (Reyes et al. 2). Arguments about

keeping an open mind may, for instance, be perceived as hypocritical if students view their

teachers as doing the opposite.

My research demonstrated a few scattered cases of students who rebelled against the

teaching of ACC as settled fact. In those cases, students seem to be responding in part to what

they perceive as teachers' rigid stances on ACC. For instance, one proud parent wrote in to a

conservative blogger, Joann Enova, to announce her son's victory over an ACC-promoting

teacher:

> The other week at school my eldest son (15) was challenged by his teacher to present to
> the class why he is a "climate change denier". He had to do this presentation the next

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[167] In fact, search results for news coverage of USC turned up several small, local organizations or individual blogs that recommended the film to those in their community. One of these was the blog of a Mormon mother recommending films that could be viewed by children, and another was a recommendation within a church newsletter.

day...Before my son spoke she showed the class the promo to Al Gore's An Inconvenient Truth. After his presentation the class gave him a standing ovation. (Enova)

According to Enova, the youth was challenged by his "socialist" teacher, called insulting names ("climate change denier"), to which the student "took up the challenge with gusto." The students pushed the teacher to follow through with the debate the next day, since, "Not surprisingly the teacher tried to pull out" (Enova). Like much of the conservative-leaning communication within the larger climate change education discourse, this father's letter and Enova's subsequent response frame the issue as one of liberal (or as Enova calls it, "socialist") educational suppression, with the conservative underdog—this time a teen—heroically standing up for the anti-ACC perspective within his own student body. Included with the father's letter was a copy of the student's PowerPoint presentation, which "he stayed up til 1 am...to put together" (see appendix M). Amongst the sources cited by these students were Unstoppable Solar Cycles and other reports produced by The Heartland Institute. The projection of the teacher as a socialist (a political stance that is deeply oppositional to that of many conservatives) suggests that this student and his father perceive the teacher's political and environmental biases as clearly displayed to students, and therefore, untrustworthy. It is possible that a willingness to discuss (and ultimately deconstruct) students' misconceptions in an open-minded and respectful way may have led to a more productive discussion.[168] Instead, the chosen approach resulted in a contentious and highly visible debate between student and teacher, which actually forced the entire class to pick between a classmate and science.

Student resistance may be especially strong when a teacher's information is perceived as a contradiction to a student's deeply-held religious beliefs or family well-being (for instance, stu-

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[168] Of course, it should be noted that Enova's discussion of this student's situation does not include the teacher's perspective. Thus, it is impossible to know whether the representation provided by Enova or the student and parent in question is accurate.

dents in coal mining families). For example, one NY Times article featured the teenage daughter of a deceased coal miner who dropped her environmental science course after her science teacher (also a former scientist) challenged her perspective that ACC was at odds with her religious beliefs. This took place in a coal-dependent region of Ohio, in which most parents believed the teaching of climate change was akin to brainwashing (Harmon).

 In this article, science teacher Mr. Sutter is depicted as a patient, level-headed educator, through reference to "his calm, evidence-based responses" and his "soothing" approaches (Harmon). His resistant student, Gwen, however, is presented more like a petulant, dramatic teenager. This depiction is executed in part through the use of adjectives that describe Gwen's thoughts, feelings, and actions. The following passage from the article demonstrates these depictions to some degree:

> When she insisted that teachers "are supposed to be open to opinions," however, Mr. Sutter held his ground.
> "It's not about opinions," he told her. "It's about the evidence."
> "It's like you can't disagree with a scientist or you're 'denying science,"' she sniffed to her friends.
> Gwen, 17, could not put her finger on why she found Mr. Sutter, whose biology class she had enjoyed, suddenly so insufferable. Mr. Sutter, sensing that his facts and figures were not helping, was at a loss. And the day she grew so agitated by a documentary he was showing that she bolted out of the school left them both shaken.

The reporter of this article ascribes particular adjectives and verbs to Gwen's feelings and actions, which depict her as immature, stubborn, and dramatic: words like "sniffed," "insufferable," "agitated," "bolted," and "shaken" (Harmon). In contrast, though Mr. Sutter was also described as "shaken" at one point, Harmon mostly underscores his most valuable teacher traits—"holding his ground" where "evidence," "facts and figures" are concerned, but still worrying over ways to reach students when his methods fall short. Digging a bit deeper within this passage, however, it is clear that this student feels that her perspective is not being respected in the classroom. This

is especially evident in one statement that Gwen makes about a documentary that Mr. Sutter showed in class: "It was just so biased toward saying climate change is real . . . And that all these people that I pretty much am like are wrong and stupid" (Harmon).

This sentiment was repeated in a few different articles and forums. It seems that some kids—especially those in the Appalachian region or pockets of Coal Country—feel that more educated outsiders like Mr. Sutter treat students and locals like ignorant kids who lack valid perspectives. This sort of elitism was also mentioned in a story that another student (Jacynda) told about Mr. Sutter: "He says, 'I left a higher-paying job to come teach in an area like this,' Jacynda recalled. 'We're like, 'What is that supposed to mean?"' Though the student did not explain why the comment caused offense, Mr. Stutter's statement may allude to his self-perceived moral superiority (giving up a high-paying job) and the general inferiority of "an area like this" (i.e., the rural Ohio school and community, and perhaps by association, the students and families living there).

The teachers who commented on this NY Times article also seemed to display some of this elitism. Most commended Mr. Sutter, and suggested that students in regions like this one are highly misinformed by their uneducated parents. For instance, one teacher says, "We can't blame people in coal country for their ignorance or abdicate our responsibility [to educate them]." Others refer to the beliefs of kids like Gwen and their families as "tribal," "gibberish," "close-minded" and "anti-intellectual," while one refers to pro-ACC teachers as "beacons of critical thinking" and another suggests that teachers resort to tricks to get students to accept climate science. The framing of many of these teachers gives some indication of how liberals came to be known by some groups as "The Liberal Elite." One commenter—a resident of Wellston, Ohio— even spoke up defensively on the forum to demonstrate that the residents living in

the community aren't all brainless bumpkins and backwater hicks as some of the other com-

menters suggested. What might be at play here is about more than the issue of climate change.

As some research shows, confrontations like these may be more about feeling understood and

respected—two things that kids often don't get from adults, even on a particularly good day

(Southerland and Scharmann 2; Velliaris). One researcher uses an old saying that "students do

not care how much you know until they know how much you care" (Velliaris 18). While this sen-

timent may sound somewhat trite Velliaris goes on to suggest that it is important for many stu-

dents to feel respected, validated, and understood by a teacher before they will willingly open

themselves up to learning from him or her.

Problematically, when teachers and students (or even teachers and entire communities)

frame the world in different ways—according to core beliefs, values, and politics greatly at odds

with each other—the task of building mutual respect and understanding may be exceedingly

difficult. It seems as if educational classroom materials—which are meant to be an unbiased

source of information—could act as a balancing force between differing perspectives in the

classroom. But can there really be such a thing a purely balanced, factual curriculum? None of

the case studies explored in this chapter suggest as much, and the materials selected by a

teacher or school also seem subject to personal or regional bias.

Furthermore, students may be predisposed to certain political views before even step-

ping foot in a school. In a thirty-year, three-generational study of parents and teens between the

1960s and 1990s, Jennings and Niemi found that the children of politically-active parents were

highly likely to adopt their parents' political leanings, especially if their parents regularly dis-

cussed politics with them and maintained consistent political views over time. Some studies even

suggest that political and religious attitudes are based largely upon biological predisposition

(Frisen and Ksiazkiewicz 791). If all of this is true, however, then it seems we are permanently stuck in our own predetermined political lanes, which are merely transferred from parent to child. If we are stuck with these personal and media biases, is there any point in introducing youth to perspectives beyond their own, or beyond those of their parents? Are there any educational resources that can be trusted with youth climate education? Do youth need unbiased information in order to learn about climate change, or is a range of undoubtedly flawed information (in addition to a willingness to critically explore and discuss information) enough? I would argue that the only way for people of all ages to learn and grow is to continually face new, challenging concepts and materials. Of course, it is possible that some people's cognitive frames of climate change are so rigid that they will never be altered. This is perhaps one reason that so many special interest groups try to aim their messages at youth, however, because youth may have less-rigidly established frames of issues like climate change.

CONCLUSION

The current battle over climate education makes it clear that we are no longer arguing over whether or not climate change actually exists (though many schools still prefer to skip climate education altogether). Rather, while most adults seem to acknowledge the existence of climate change, many teachers, administrators, politicians and parents, continue to argue over whether climate change is natural or man-made, and what (if anything) children should be taught about those causes.

After looking at the discussions surrounding a few of the most-talked-about resources for classroom climate education, there are a few patterns that emerge (though these patterns don't seem to move us toward any real solution about the shape of climate education). First, though some materials—like Gore's AIT films—are so symbolic of the climate movement that they seem

vital to climate education, such materials are also highly politicized, and thus, may evoke negative frames that seem antithetical to open-minded classroom conversations. Second, it isn't enough to expect that trusted educational brands like Scholastic will provide balanced climate information for youth, since educational companies operate for profit, and may act as simultaneous champions of ACC and fossil fuel energy, as is convenient or beneficial to the company. Third, CEDAR curriculum illustrates how greatly the needs, beliefs, and politics of a region can impact climate change education (even rendering the issue entirely invisible). Such curriculum also suggests that open-minded, fact-based classroom discussions may depend upon a teacher's respect and understanding of local cultures. And finally, The Heartland Institute's Unstoppable Solar Cycles demonstrates that there may be more fears circulating about the use of materials that delegitimize ACC than actual use of materials for that purpose. Though there doesn't seem to be much evidence of the use of such films to present a one-sided, anti-ACC view to students, there is evidence that (perhaps well-intentioned) teachers may use the source to stimulate a fair and balanced debate between students. This continued debate approach is supported by The Heartland Institute, and some feel that it causes serious harm in efforts to educate youth about climate change.

Ultimately, however, I argue that the denial of alternate student perspectives (or open classroom discussion about those perspectives) can also alienate students and shut down discussion or the critical exploration of different viewpoints. These case studies provide further support for the belief that there is no such thing as unbiased information. Some sources of educational information are highly politicized, others may act based on self-interest, and the information accepted in a given school may be influenced by the biased perspectives of a community. In fact,

longitudinal research suggests that the political perspectives of youth are often influenced by the perspectives held by their guardians, communities, and schools (Frisen and Ksiazkiewicz 791).

Of course, with so many special interest groups eager to imprint their frames on the minds of "malleable" youth, perhaps it is natural for parents and teachers to feel worried. Nevertheless, informational gatekeeping may not be the strongest way forward, especially since it fails to respect the intelligence, agency, and individual difference of our nation's youth. Perhaps the best option—especially considering the inevitability of personal and media bias—is to openly share, discuss, and analyze a variety of perspectives and sources with youth, trusting them to participate in climate conversations while working with them to problem-solve and find points of compromise. True, there is no compromising with nature, nor can humans strike a deal on climate change. However, it is equally impossible for adults to build a dam around the ocean of information online. It just isn't possible to protect youth from the potentially frightening information that lurks out there in the secondary world online. But perhaps it isn't even desirable to do so, since conversing with students about that information can both inform and empower students. In some cases, those discussions may even broaden a student's point-of-view. When frames are broadened and we can see the bigger picture, aren't all of us—kids included—better prepared to take informed action?

CHAPTER 3:
AGENCY, ADVENTURE, AND PASSIVITY IN CHILDREN'S CLI-FI MEDIA

INTRODUCTION

The issue of climate change is just as touchy in the children's entertainment world as it is elsewhere. In fact, while there are plenty of science- and nature-themed kids' shows on television, nearly all of them ignore the existence of climate change (Wenner-Moyer).[169] When asked about the omission, representatives for both Nickelodeon and PBS Kids seemed to back away from the topic. Nickelodeon spokeswoman, Leslie Byxbee, suggested that most environmental issues mentioned on the network's shows are related to climate change (although the issue is never mentioned by name). In contrast, PBS Kids spokeswoman Maria Vera Whelan indicated the network's belief that basic science education is more "age-appropriate" for their audience (Wenner-Moyer). When considering potential reasons for the avoidance of the climate change issue, Wenner-Moyer speculated that the bottom line may have something to do with it. "My guess is that the networks are afraid that promoting the (extremely solid) science on a politically controversial issue will lead them to lose viewers or advertisers," she wrote. As the previous chapter demonstrated, much of the public has not reached the same consensus as scientists. Rather, we are a country deeply divided on climate change. Thus, it makes sense that large media companies targeting a broad base of viewers might choose to hedge their bets regarding controversial topics like climate change.

Unlike much of the entertainment industry, some mainstream children's publishers seem eager to address the topic of climate change. In fact, plenty of publishers address the issue,

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[169] In her 2017 Slate article, Melinda Wenner-Moyer cites shows like Nature Cat, Sid the Science Kid, Wild Kratts, Blaze and the Monster Machines, and Octonauts. She also points out that "there is only one climate change-focused movie among Common Sense Media's list of 47 'Movies That Inspire Kids to Change the World.'"

even in picture books for younger children.[170] Furthermore, climate change books have truly tak-

en off for older readers, thanks to the growing popularity of a sub-genre called cli-fi (or climate

change fiction).[171] Children's cli-fi can fall into a wide range of genres, like realistic fiction, school

stories, comedy, and even sports novels. Much cli-fi falls into the genre of dystopian fiction,

however, which has long been popular with youth. As children's literature scholar Kimberley

Reynolds writes, "…frightening fiction [such as dystopian fiction] is one of the largest and most

diverse areas of writing for children" (131). Dystopian authors are known for imagining the worst

possible consequences of humanity's darkest social ills. Within the pages of children's chapter

books, middle-grade novels, and young adult sci-fi, there is no shortage of disturbing fictional

worlds in which humanity's future has gone terribly awry. And from Lois Lowry's The Giver series

to Suzanne Collins' The Hunger Games, dystopian fiction couldn't be more popular with kids and

teens. Is it any wonder then that climate change—which comes with predictions of a real

dystopian future—would also take off as its own genre? Perhaps surprisingly, climate change fits

rather well within a range of genres. After all, school stories often feature clever children who

solve the problems that confound adults (as climate change certainly has), and the genre of

comedy is known for making light of serious topics that are sometimes too painful to discuss any

other way. Such styles are quite popular in cli-fi for ages eight to twelve, which is where this

chapter will focus.

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[170] See, for example, Anne Rockwell's Why Are the Ice Caps Melting? (2006) or What's So Bad About Gasoline? (2009), Peter Brown's The Curious Garden (2009), Caroline Arnold's A Warmer World (2012), Sandra Markle's Waiting for Ice (2012), Ross Murray's adaptation of Goldilocks and the Three Bears (2016), Allison Jay's Bee & Me (2017), or Bryn Barnard's The New Ocean: The Fate of Life in a Changing Sea (2017).

[171] Although the category arguably precedes the 1980s (when cli-fi was first written in significant numbers), the genre did not receive wide recognition until the term "cli-fi" was coined by reporter Dan Bloom sometime around 2006 (Trexler 8). Ursula K. LeGuin is largely credited for writing the first novel about anthropogenic climate change (The Lathe of Heaven, 1971). As stated by Adam Trexler, there seems to be a swell in the writing of cli-fi books during periods "when there appeared to be little hope of American leadership on environmental issues" (8).

Although much of this project has focused on a broad range of ages (from the start of preschool through high school graduation) a more narrow age group was selected for this particular chapter. This was done for a variety of reasons. First, because eight- to twelve-year-olds have largely been ignored in cli-fi research, though the Next Generation Science Standards suggest that children within this age group are more than capable of learning about anthropogenic climate change. Second, because this is the youth age group that engages most consistently in pleasure-reading (NCES "Reading,"[172] NCES "Average").[173] And third, because the sheer volume of youth cli-fi in existence today necessitated the narrowing of parameters.

The volume of juvenile or middle grade cli-fi points to some level of bravery in the children's publishing industry, with so many publishers willing to tackle the controversial topic of climate change. However, that bravery may not translate into the depth of coverage that youth need to feel informed. If Wenner-Moyer is correct in her assertion that the entertainment industry might wish to sidestep controversial subjects that could cost them both dollars and viewers, then how might profit margins affect the framing of climate change in children's cli-fi? Wenner-Moyer's statement led me to wonder whether large children's publishers might frame climate change and child actors differently than small, independent environmental publishers for children. Children's literature scholar Julia Mickenberg writes that historically, children's literature has been used to spread new social ideas in part because "it reaches the nation's most open-minded citizens, often on a massive scale, because of the ready market provided by school libraries" (9). This usually means, however, that authors who want to have maximum impact must write texts that are acceptable to larger publishers and broader audiences.

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[172] Please access this NCES article by visiting the following web address: https://nces.ed.gov/blogs/nces/?tag=/reading

[173] Please access the report by visiting the following web address: https://nces.ed.gov/programs/digest/d14/tables/dt14_221.30.asp?current=yes

Thus, in this chapter, thirty-six children's cli-fi were examined from five publishers: three of the nation's largest children's publishers,[174] and two of the top independent publishers of children's environmental fiction.[175] The framing patterns that resulted from this examination led to two discoveries. First, larger publishers do seem to frame both climate change and children more cautiously than independent publishers do. In contrast with small environmental publishers, large children's publishers tend to provide only surface-level discussions and few solutions, with little follow-through by child protagonists. Those larger publishers also tended to pad deeper discussions with humor, buried climate change discourse, or the minimizing of blame. Second, these patterns offered yet another glimpse into how adults view children—their capacity to handle complex issues and their role in climate change action—and how those perceptions may shift depending on the needs of a media company.

In her book, Don't Tell the Grown-Ups: The Subversive Power of Children's Literature, Alison Lurie writes that "staying in touch with children's literature and folklore . . . is . . . a means of understanding what children are thinking and feeling" (204). Here, Lurie suggests that we adults can understand children by exploring what adults have written for children. While I do believe that wildly popular children's books can give us a sense of the kinds of writing that kids prefer, I believe that the examination of children's literature tells us far more about how adults perceive children than how children think and feel. This perspective is supported by Barbara Johnstone, who notes that literature for youth "is not children's language, but language by adults addressed to children. It represents, in other words, an adult's idea of how a child's mind might

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[174] All available middle grade cli-fi books were analyzed from three of the nation's largest children's publishers: Harper-Collins (five books), Penguin Random House (eleven books), and Scholastic (six books).

[175] All available middle-grade cli-fi books were analyzed from two of the leading independent publishers of children's environmental fiction: Green Writer's Press (four books), and Orca Books (nine books).

work" (15).[176] Ultimately, I argue that the framing of both children and climate change within children's cli-fi matters, because what children read about social issues (and themselves as social actors) can either empower or discourage their participation in the discussions that impact their lives. For, as Reynolds writes,

> It is the words and images of often physically small texts that turn out to be capable of filling the minds of generations of young readers with experiences, emotions, and the mental furniture and tools necessary for thinking about themselves and the world they inhabit . . . Childhood is certainly a time for learning to negotiate and find a place in society, but it is also about developing individual and child suited to a future in which societies could be different in some significant way. (1-2)

BACKGROUND
Cli-Fi, Dystopian Children's Fiction, and Subversiveness in Children's Literature

At the most basic level, subversive literature is that which questions social assumptions and expresses new ways of seeing the world (Lurie xi). In a sense, all children's and young adult cli-fi is subversive to some degree, since it must raise some level of awareness about a frightening social issue to young readers. This in itself subverts the romantic perception of childhood as a happy time, free from worries (Cunningham 72; McGavran, Jr. xiv). More broadly, Lurie labels most children's literature as subversive:

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[176] Both Jacqueline Rose and children's literature scholar Perry Nodelman have written at length on this issue. Rose argues that children's fiction is impossible because it attempts to define the child—and to seduce the child into compliance with such a definition—without including the child's viewpoint in the process (2). Similarly, Nodelman writes that children's books frequently depict conflicting ideas of children and childhood, and that the texts often betray a much more complex nature (what Nodelman terms "the hidden adult") just beneath the surface. The presence of the hidden adult in texts for youth creates a sort of tension in the text; the 'knowing' author and the 'learning' reader each take on a role within an imbalanced relationship. These power dynamics are subtle, and require a close reading of texts and subtexts. Hollindale claims that all children's literature is didactic in nature, since ideology permeates all thought, and thus, all writing; therefore, all children's and young adult literature must be didactic on some level (1). Though I do feel that most communication is persuasive, I do not wish to suggest that most persuasion is deceptive. Nor do I suggest that all deceptive persuasion is intentional. Regardless of intention, much literature for children is somewhat didactic in nature, with hopes of shaping youth into 'good,' responsible adults and citizens. By focusing on plot elements that seem to be subversive, Seelinger-Trites asserts that authors of literature for youth are able (either consciously or unconsciously) to "manipulate the reader to assume subject positions that are carefully constructed to perpetuate the status quo" (xii). I believe that careful attention to certain devices within children's texts will aide in the identification of underlying, 'hidden adult' attitudes (or frames of children), and persuasive elements regarding climate change and youth.

> Most of the great works of juvenile literature are subversive in one way or another: they express ideas and emotions not generally approved of or even recognized at the time; they make fun of honored figures and piously held beliefs; and they view social pretenses with clear-eyed directness, remarking—as in Andersen's famous tale —that the emperor has no clothes. (4)

However, many children's literature scholars disagree about the level of subversiveness within texts for youth. For instance, in Disturbing the Universe, Roberta Seelinger-Trites suggests that most literature for youth only pretends to be subversive in order to ultimately control youth and perpetuate the status quo (xii). In fact, Seelinger-Trites states that fiction for youth "serve as yet another institution created for the purpose of simultaneously empowering and repressing adolescents . . . By providing for an emotional outlet, antiestablishment humor helps teenagers reconcile themselves to living with the establishment" (xii; 35). Michelle Abate also applies such skepticism to seemingly subversive children's literature, noting that, while books like Caddie Woodlawn, Little Women, and Little House on the Prairie seem to permit reverse gender roles for tomboy characters, they only do so in the event that these characters will be able to grow up as proper young ladies (7).

Kimberley Reynolds agrees that much of juvenile literature is a contradiction of "break-ing away and becoming, control in conformity," (79) suggesting that many of the juvenile books that do tackle serious issues (what she calls nihilistic fiction) also "risk encouraging conformity and disillusionment. They illuminate problems, but only offer restricted ways forward" (81). How-ever, she also sees a small percentage of juvenile literature as celebrating "adolescent creativity and agency" (77). Such literature, Reynolds says,

> shows young people as ethical, engaged, and effective. When confronted by disap-pointments and challenges, the characters in this group of books prove to be resilient, and the texts hold out a belief that change is necessary and, crucially, possible. This makes purposeful action — whether rebellious or reformative and no matter how likely to succeed — meaningful. (82)

In contrast, Reynolds has a more optimistic view of children's literature's subversiveness (as opposed to juvenile or young adult literature). She argues that children's literature has "demonstrable capacity for innovation . . . The stories we give children are blueprints for living in culture as it exists, but they are also where alternative ways of living are often piloted in recognition of the fact that children will not just inherit the future, but need to participate in shaping it" (9; 14). In this way, Reynolds identifies subversiveness in the ways that some children's literature grants children the capacity to participate.

Both Reynolds and scholar Julia Mickenberg credit subversive children's literature with shaping the social and political views of children (though neither seem to address child agency in this process). Reynolds writes, "Just as we never leave childhood behind, so the narratives ingested in childhood endure and shape adult thinking and behavior at many levels" (Reynolds 19). Further, Mickenberg argues that children's literature does influence youth activism, citing as evidence the progressive, empowering children's literature of the 1950s, and subsequent youth social action in the 1960s (26). While many of these scholars focus primarily on teenagers and young adult fiction (a sign that more coverage of middle grade fiction is needed) these assertions could easily apply to some middle-grade cli-fi literature, as well.

Why Cli-Fi?

My interest in children's cli-fi has multiple dimensions. First, cli-fi provides a unique opportunity for publishers to help children get informed and involved in climate action. Reynolds suggests that, "children's literature contributes to the social and aesthetic transformation of culture by, for instance, encouraging readers to approach ideas, issues, and all objects from new perspectives and so prepare the way for change. This is the sense in which I see writing for the young is replete with radical potential" (1). After all, though nonfiction books are more often la-

beled as educational resources, research suggests that fictional media is far better at inspiring young viewers to take action and drive positive social change than texts with a decidedly didactic tone and obvious educational goals (Morgan 135; Moyer-Gusé 407; Slater and Rouner 173). This may be true for a number of reasons. First, learning—and the educational media that goes along with it—is often treated as a chore. Just as adults perceive their careers as hard work, some scholars suggest that children's education should be acknowledged as a job (James and James; Qvortrup). As an extension of schooling, overtly educational or didactic texts may send a signal to youth that the messages within will be boring or disagreeable; in some cases, youth may disengage as a result. Thus, entertainment media such as cli-fi is an interesting format for examining climate information for kids.

Second, studies also show that, even when sound logic is used, we are often resistant to texts that set out to educate us on the harmful effects of our lifestyles. According to scholars like Naomi Klein, all people work under the premise that they are basically good, and that their world-views are mostly in line with attempts to promote goodness and morality in the world. When evidence arises that clashes with that self-perception, people often resist the evidence (Klein; Goffman; Gray; Entman). In response, they may either choose to minimize the evidence and outcomes, or dismiss the evidence as preposterous. Once a person is put on the defensive, his or her engagement with the topic will likely shut down, likely deflecting any further attempts at discussion on the subject (Frameworks Institute). Since fictional media maintains the primary goal of amusing the audience, however, social issues can serve as a backdrop for plot lines that are whimsical, humorous, or full of adventure, thus allowing less palatable ideas to slip in beneath the surface. Call it the sweet spoonful of sugar that makes the bitter medicine of criticism

go down. Studies show that such an approach may have a better chance of targeting both adults and youth without raising defenses (Morgan).

While these reasons explain the selection of children's entertainment media, some may question the choice of children's literature over children's television or film. After all, many reports suggest that children still watch a substantial amount of television, and some reports also indicate that youth "don't read" (National Endowment for the Arts). Such concerns certainly raise questions about the relevance of a children's literature focus in contemporary research. However, children's television and film companies simply aren't covering climate change at a rate remotely comparable to fiction. Furthermore, despite fears that youth no longer read for pleasure, several studies show that the practice of free reading continues to be popular in youth. A 2015 report released by the National Center for Education Statistics (NCES) shows that the percentage of nine-year-olds who read every day has remained steady, at 53% on average over twenty years (the highest of any age group [NCES "Reading," NCES "Average"]). In fact, 76% of nine-year-olds read at least once per week for fun in 2012.

While a fair amount of cli-fi scholarship has been written, much of it is rather dismissive of young adult fiction, and ignores children's cli-fi altogether. For instance, scholar Adam Trexler, author of Anthropocene Fictions, only discusses one young adult cli-fi series, Saci Lloyd's Carbon Diaries, which he minimizes as "a mere teen novel" (206). He does not discuss children's cli-fi at all. Much of the scholarship published about environmentalism in children's literature is interested primarily in the connection between youth and nature (Dobrin and Kidd's Wild Things, for instance). This dearth of attention on children's and juvenile cli-fi is either a strange oversight

(considering the number of youth cli-fi novels listed across multiple published cli-fi book lists),[177] or yet another indicator of the subordination of children and children's culture in the western world.

Framing in Children's Cli-Fi Fiction

In one sense, children's environmental media may have more persuasive potential than environmental media created for adults, since the target audience for such media is less likely to harbor pre-existing mental frames about environmental issues. Thus, a younger audience may be more open-minded when exploring environmental information sources. Environmental media for youth is also significant because it offers youth an opportunity to participate in discussions that impact them both presently, and long into the future. And while children's cli-fi has seen a boost since 2006, this media has not done a consistent job of positioning youth as informed young citizens who are able to take the next steps toward action. In fact, many of the mainstream cli-fi books available to youth seem to background the issue in ways that demonstrate climate change as an issue that children are [unfortunately] aware of, and thus, must be dealt with. Most frequently, the topic is dealt with in ways that soften the issue, rather than clarifying the sharp points that make the problem particularly threatening. Thus, children may walk away from the message with a false sense of security, and a diminished urgency to act.

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[177] For example, see:
- www.theguardian.com/books (Armistead et al.).
- www.goodreads.com/list/show/36205.Cli_Fi_Climate_Change_Fiction

Table 8: Cli-Fi Framing Levels Based on Analysis

Level	Problem Definition	Causal Diagnosis	Moral Judgments	Suggested Remedies
Level 1	The problem(s) is identified, though explanations are minimal or absent. Outside discussion or research may be necessary if the reader is to grasp the problem on a deeper level.	The cause(s) of climate change and associated issues are either unidentified or ambiguous.	Little to no evaluation of causal agents is included.	Little to no discussion of solutions is included. Children are left out of the creation and/or execution of those solutions that are identified.
Level 2	The reader is provided with a basic understanding of the problem and/or associated issues. There is no little or no identification of the costs associated with inaction.	The cause(s) of climate change and associated issues are clearly identified, though explanations and/or reasons associated with causal agents are minimal.	The text does include moral judgments pertaining to the actions of causal agents and problem-solvers. Moral judgments are minimized through the use of one or more literary devices.	Some basic solutions are identified for the reader. Children are identified as agents of change, though their ability to affect change is limited to their own person or others of their age. There is little or no identification of the benefits associated with action.
Level 3	A thorough explanation of the problem and associated issues are provided. The costs of failing to address the problem are identified.	The cause(s) of climate change and associated issues are identified for the reader. The reasons for the causal agent's role in the problem are explained.	Moral judgments are clearly stated and strewn throughout the text.	A range of solutions are identified for the reader, along with explanations for implementation and the benefits and costs associated with said solutions. Children are seen as instrumental in effecting broad social change. The benefits of addressing the problem are identified.

Through a qualitative frame analysis of thirty-four examples of middle-grade cli-fi, I have

been able to ascertain three levels of framing related to the issue of climate change (see table

8).[178] In the following representative examples of the larger body of children's cli-fi media, I will

identify shifts in problem definition, causal diagnosis, moral judgments, and suggested remedies

between texts, while also analyzing the potential implications of these shifts.[179]

CASE STUDY 1: Steve Corwin's "The Great Alaska Adventure!"
Junior Explorer **series**
Penguin Random House, 2010
Level 1 Framing

The Junior Explorer series is a double-threat for the dual audience, attracting young

readers with the star appeal of famed television conservationist, Jeff Corwin, and courting the

approval of parents and educators with its promise of educational content. Thus, this series is

readily available at both public and school libraries. Corwin has acted as the host of various chil-

dren's nature shows on multiple television channels, including Animal Planet, Disney, Discovery,

NBC and CNN (Corwin), perhaps making him one of the most recognizable conservationists in

children's television today. The Junior Explorer series features two siblings named Benjamin and

Lucy who explore their natural surroundings both at home and abroad. In this particular install-

ment of the series, entitled "The Great Alaska Adventure," the children travel to Alaska with their

scientist parents to observe the effects of climate change firsthand.

Although Corwin's text is situated within the lowest level of issue framing overall, the

author does provide ample details pertaining to particular sub-issues related to climate change,

such as animal endangerment. According to some sources, the plight of animals is an effective

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[178] See appendix N for the complete list of texts under analysis, along with framing patterns within those texts.

[179] "Middle-grade" is defined here as literature for children between the ages of eight and twelve. Children's cli-fi titles were selected from the three largest children's publishers to release climate change fiction for children between 2006 and 2017 (Penguin Random House, Scholastic, and HarperCollins), as well as two of the top independent publishers of children's environmental fiction (Orca Books and Green Writer's Press).

way of drawing youth into an issue, since children can identify with the relative powerlessness

that animals feel in comparison with adults (Cole and Stewart 9; Dobrin and Kidd).

Climate change information comes most frequently from adult scientists (including Ben

and Lucy's parents) in "Alaska Adventure," which conveys the perspective that first, adults and

scientists are the authority on climate change, and second, that adults can and should involve

youth in discussions about climate change. For example, when showing Ben a photo of a nar-

whal pod, Ben's mother sighs, saying, "Take a good look at them. We might never see a pod like

this again . . . Studies show that narwhals are especially vulnerable to climate change . . . They

migrate along the same channels every year, and eat only a narrow range of food. As their habi-

tat changes, they'll have a hard time changing with it" (Corwin 18).

This is the first of many passages that identify the detrimental effects of climate change

on wild populations. By identifying somewhat troubling information about animal endangerment

early on in the book, Corwin offers his child readers a place in climate change discussions. Such

information is common throughout "Alaska Adventure," and the children eagerly collect any cli-

mate change information that they can find or observe. In fact, Ben and Lucy ultimately decide

to record their observations for a collaborative school project, by composing a typed report and

photographs that document the current state of the tundra and its wildlife. "'It won't be just kid

stuff,' Benjamin said importantly . . . 'This could be a record for real scientists to use. Someday

someone will want to know what Alaska was like today. If they see and read our findings, scien-

tists can compare them to their findings in the future to see what's changed'" (Corwin 57).

This aspect of the plot creates a clear space in which the young protagonists—and chil-

dren in general—can participate in climate change research (though the characters do not actu-

ally attempt to seek out solutions). Ben and Lucy both express their eagerness to work as scien-

tists when they "grow up" (Corwin 16, 106). Although the kids acknowledge that adult scientists would not be interested in their research just yet (nor can they find a way of gaining public attention for the work they are doing), they do their best to emulate what "real" scientists would do so that they can "captur[e] not just one moment in Alaska, but the way things are evolving here" (Corwin 108). Furthermore, adult scientists encourage the children in their inquiries and observations, which may empower young readers to adopt an interest in climatology as a career choice.

Despite some level of child empowerment, however, Corwin's text does not ultimately position both his child protagonists and his young readers as future participants in the battle against climate change. The children's report is seen as a practice run, and the kids do not receive a depth of information that would allow either them or young readers to devise informed, impactful solutions to climate change alongside adult problem-solvers.

This is true in large part because three important elements of the climate change issue—causes, moral judgments, and solutions—are all largely absent from the narrative. While the children do receive a regular stream of facts about the effects of climate change, they are not given even the most basic scientific description of how climate change occurs, or the causal actors behind climate change. In fact, climate change is treated more like an unfortunate, yet unstoppable force of nature than a man-made problem. Statements like, "now the permafrost was melting because of global warming" seem to personify the phenomenon of climate change, identifying nature as the causal agent that torments animals and humans alike. Indeed, none of the multiple scientists in the narrative attribute climate change to human actions, nor do they discuss possible solutions or even the need for solutions. In this way, climate change comes off as a particularly nasty storm that is blustering throughout the natural world, with scientists only able to sit back

and watch with passive concern. Even as Ben falls asleep at the end of his Alaskan adventure, he dreams of growing up to observe long-term climate changes, not of preventing those changes from happening (Corwin 108). Considering that most scientists predict that the climate imbalance will be tipped into catastrophic levels by the time nine-year-old Ben reaches his late twenties, Ben's sleepy hopes for his future career are clouded by a grim reality.

This story ultimately chooses explanations meant to soothe worried minds, rather than prepare readers to adapt and solve problems. Perhaps the need for solutions is minimized when a problem is framed as having no cause. If nature—rather than humans—has caused climate change, then it may be wise simply to hope for the best and let nature run its course. This perspective is amplified through the actions ascribed to climate change in its personified form. Corwin associates the personified problem with verbs that carry negative connotations, which further removes humans from the place of blame. For instance, in the phrase, "the changing climate is forcing people and animals to change," the verb "forcing" holds negative connotations which evoke particular frames in the reader's mind. Such wording effectively transforms the personified force of climate change into the only villain that the story needs, which also protects the young reader from the feelings of guilt and urgency that may come with having one's species implicated.

In this way, Corwin's narrative of child-empowerment and environmental education comes to reflect conservative rhetoric rather than a truly accurate picture of the problem or a legitimate call to action. In fact, the text as a whole seems to reflect one of the more moderate climate change positions coming from conservative think-tanks like the CATO Institute or The Heartland Institute (see chapter 2).

Despite a large number of facts about climate change effects, Corwin's "The Great Alaska Adventure" ultimately frames the issue of climate change at the lowest possible level, with no scientific explanation of the climate change phenomenon, no identified causal agents, no moral judgments that target nature itself, and no proposed solutions (or even the suggestion that solutions should be sought). Most significant of all, this narrative promotes the concept of futurity in children—that children are becoming contributing members of society, rather than having the capability of contributing in meaningful ways as children (James and James 57). Anything that occurs prior to that becoming is merely a practice run.

**CASE STUDY 2: Todd Strasser's
"Is that an Angry Penguin in Your Gym Bag?"
Tardy Boys series
Scholastic, 2008
Level 2 Framing**

Of course, causality is a delicate issue to address, and perhaps even more difficult than problem definition. This is perhaps because causality involves pointing the finger of blame at a specific person or group, which has the potential to provoke feelings of guilt or anger in the reader (Gray 21-2; Rothman; Kelman). When compared with the identification of the problem, the diagnosis of causes also has greater potential to cause social upheaval (Gray 22). When the problem is identified, the concern that readers may feel is not necessarily directed at any specific target. With the diagnosis of causes, however, the author directs the reader to attribute blame to a particular person or group (and in some cases, that blame may be directed at the reader). With blame often comes guilt and/or anger. Therefore, the diagnosis of causes—which is frequently absent in materials that aim to appear more neutral—leads both the text and the reader

into a space that is charged with negative emotion, most of which is directed toward a specific target.

Perhaps these consequences partly explain the lower frequency of causal diagnosis within children's cli-fi media. While fiction as a whole does have the potential for softening serious issues, publishers of children's cli-fi still seem to have reservations about the diagnosis of causes for a young audience. Overall, the analysis of issue framing in children's cli-fi demonstrates that authors and publishers do not seem to be as worried about overwhelming children with information as they are about pointing the finger or asking readers to make significant changes in order to solve climate change. However, the diagnosis of causes does become somewhat easier to broach within certain sub-genres of fiction. For example, the sub-genres of fantasy, sci-fi, and comedy have the power to cloak sensitive issues in adventure, imagination, and outright hilarity, which may not be present in more realistic fiction. This is because a realistic school or coming-of-age story follows characters who exist in worlds similar to our own. Thus, the issues that arise in the daily lives of these characters may seem more applicable in the lives of readers. Characters within the sub-genres of fantasy, sci-fi, and even comedy, however, may seem further removed from reality. Within these sub-genres, the reader may choose whether to read environmental problems as applicable to human/earthen reality or not.

For instance, author Todd Strasser is able to implicate adults and corporations as causes of climate change, because his story seems entirely too ridiculous to cause offense. The plot of "Is that an Angry Penguin in Your Gym Bag?" revolves around a colony of penguins who take over the school's hockey rink, presumably in protest against humanity's destruction of their Antarctic habitat, all while the school prepares to host the taping of a national talent search program entitled American Super Mega Idol Star Search. Since the incompetent educators of The

School With No Name are busy relaxing or preparing to display their talents on the show, it is up

to the Tardy Boys and their friends to learn how to communicate with the penguins and solve

climate change so that the penguins can return home. The plot of Strasser's story involves multi-

ple comically ridiculous elements, which allow the reader to place some distance between the

problems faced by American school children in the story, and the dilemmas faced by American

school children in reality.

This story has no problems with identifying the issue of climate change. In fact, climate

change is identified by name within the first few pages of the book, when the narrator complains

of an unusual winter heatwave: "Yes, it was a winter morning. But thanks to global warming, by

seven a.m. it was already seventy-five degrees" (Strasser 8). Although this first introduction to

climate change sidesteps the issue of causality, it isn't long before Strasser begins to hint at hu-

manity's role in heating the planet, as well as some specific ways that humans are turning up the

heat. For instance, the story's female protagonist, Daisy, responds to a complaint made during a

rhyming word game with the following statement:

> "Life isn't always fair . . . For the past two hundred years, humans have been pump-
> ing greenhouse gases into the air. But it is only our generation that will have to beware."
> "What if we don't care?" Leyton asked.
> "Then we'll be in for a scare," said Wade. (Strasser 18)

Here, Daisy suggests that, not only have past generations caused climate change, but that the

current generation of children will be left to clean up the mess. Within this one passage, Strasser

quickly surpasses the framing level of Corwin's "Alaska Adventure" by suggesting that the cause

of climate change is both manmade and preventable. Corwin's text—which presents a rather

realistic world, and what could be seen as an average white, middle-class family—could not

identify people as the causes of climate change without risking a negative emotional turn for

young readers. When blame is attributed to adults in "Angry Penguin," however, any negative

undertones are diffused by humor. In fact, Daisy only brings up the unfairness of climate change

in response to Wade's complaint about the unfairness of having Chronic Unruly Hair Syndrome

(an affliction that does not really exist, and is used as a humorous subplot). The juxtaposition of

these two unfair situations—the inheritance of a climate disaster and the contraction of a fictional

Chronic Unruly Hair Syndrome—suggests that readers should consider both situations with some

levity.

According to an article by psychologist Mary-Kim Arnold, humor is a highly effective

mechanism of coping with difficult issues. "Humor enables you to look at a problem from a dif-

ferent point of view, make it seem less serious, and realize opportunities for increased objectivity

and insight." Further research suggests that humorous children's literature specifically "can bene-

fit students of all ages by improving their ability to understand and cope with problems" (Anti-

Defamation League).

Although Daisy's diagnosis of causes is made in passing, nearly all of the book's adult-child

encounters also deem adults irresponsible and foolhardy. Educators at The School With No

Name are shallow, selfish, and lazy, with little regard for the education or well-being of the stu-

dents in their care. The adult characters' disregard for the planet only seems to be an extension

of this. For instance, many of the teachers in Strasser's book are too lazy to teach or plan lessons,

preferring instead to allow corporations to set learning goals and plan curriculum. The teachers

do not appear to be choosy about either the source or the focus of such curriculum, so long as

they are not required to teach. In the following instance, the kids' social studies teacher explains

why future class periods will be spent watching corporate messages on TVs provided by the Na-

tional Association of Television Manufacturers: "'recent studies have shown that watching televi-

sion and movies in class is a helpful teaching tool,' Ms. Fitt explained. 'It creates a less stressful

teaching environment, which helps teachers relax and gives them more time to do important things like answer e-mails and catch up on their sleep'" (Strasser 53-4).

This statement demonstrates adult prioritization of personal interests over the interests of youth, both within the classroom and in the world more generally. Ms. Fitt's justification for TV as a teaching replacement also sets up a critique of corporate climate change media. Later in the story, Ms. Fitt queues up a film entitled, The Myth of Global Warming, which was provided to her by the National Association of Coal and Oil Distributors (a fictional organization). The issue of climate change is not framed as a serious problem within this film. Instead, the NACOD frames the problem as misinformation, which is purportedly spread by companies wishing to make a profit from wind turbines and electric car batteries (Strasser 55). Ms. Fitt's selection of this film is couched in humor, which softens the continued insinuation that adults prioritize their own desires (both for free time during class and for the uninhibited consumption of fossil fuels) over the future success and survival of children.

Ms. Fitt's continued characterization as selfish and lazy also indicates that readers should not trust the accuracy of information that she provides to students. While the Tardy Boys initially take the film's message as fact, Daisy—who is the group's intellectual leader—explains to them that "that video was made by people who sell oil and coal . . . They'll say anything to try to make you believe that global warming has nothing to do with greenhouse gases, because burning oil and coal are two of the biggest producers of greenhouse gases" (118). This statement by Daisy leaves readers with a decision about which of two climate change frames to adopt, if any: the frame presented by the NACOD, which identifies climate change as a myth, or the frame elucidated by the book's brainy protagonist, which suggests that adults and fossil fuel companies are causing climate change through the production and consumption of fossil fuels. The fact that the

NACOD is a fictional organization is important. If Strasser were to identify an organization like

OPEC in the text, then the depiction of climate change and associated causes would shift signifi-

cantly, and the reader (if aware of OPEC's significance) would be forced to consider the role of a

specific organization in causing climate change or intentionally misleading kids and adults on the

issue. Since NACOD is fictional, however, it is possible to assume that such intentional misdirec-

tion is not actually occurring.

Based on the depiction of teachers within the classroom setting alone, is no wonder that

the students cannot depend upon their school's faculty to handle a rink full of angry penguins. In

fact, most teachers at the school ignore the existence of the problem altogether, instead focus-

ing on their building excitement about either watching or performing in American Super Mega

Idol Star Search later in the evening. With the adults distracted by the upcoming evening of en-

tertainment, the young protagonists are forced to shelve their own desire to play a game of ice

hockey in the school's hockey rink. Instead, they must spend their time addressing the anger that

penguins feel in response to adult transgressions.

This split adult-student focus within the story further dichotomizes adults (the selfish,

hedonistic mess-makers) and children (who must forgo personal interests in order to clean up

adult messes). According to children's literature scholar Alison Lurie, such a depiction of adults is

subversive and empowering: "More or less openly, the author takes the side of the child against

his or her parents [or authority figures], who are portrayed as at best silly and needlessly anxious,

at worst selfish and stupid" (9). The inability of Strasser's adults to understand or resolve envi-

ronmental issues is summed up in a statement made by Assistant Principal Snout to a

reporter. When the reporter asks how Snout plans to deal with the penguins, Snout replies, "Uh,

we don't really have a plan for the penguins. Frankly I'd like to pluck their feathers and make

penguin pajamas, but all these annoying animal rights and environmental groups won't let me . . . Mostly we just hope someone comes along and saves us" (Strasser 88). This example reiterates the book's continued criticism that adults cannot be trusted to act responsibly or to solve the problems that they create.

By contrast, Strasser suggests that children are capable enough to solve adult problems, even suggesting that the children must be the ones to act if global disaster is to be avoided. The Tardy Boys and their friends aim to mend the human-animal rift caused by environmental irresponsibility, by researching climate change and learning how to communicate with the penguins so that a cooperative solution can be devised. Much of this problem-solving is done by Daisy. Daisy petitions to increase the production of the corn-based fuel ethanol, since it "puts fewer greenhouse gases in the atmosphere. And that could help slow global warming . . . it will keep the world cooler than if we continue to use gasoline" (Strasser 15).

Unfortunately, Daisy's petition to promote ethanol production is the only concrete solution that the Tardy Boys crew devises to resolve climate change, and as a solution it is fairly weak. While ethanol does release fewer greenhouse gases than traditional fossil fuel energy, it only slows climate change slightly. Strasser's inclusion of a solution—any solution—may direct readers toward a particular way of thinking about climate change, which involves active problem-solving rather than the acceptance of climate change as an inevitable force. Such an inclusion tells youth that solutions are possible; the promotion of this solution by a likable child character also empowers children and positions youth as potential social change agents. Ultimately, however, the shallowness of discussions surrounding problems and solutions do little to incite action on the part of the reader. Furthermore, the comedic, ridiculous nature of the text may also hinder action. While comedy does soften the threatening edges of climate change discussions, such levity

may also make action seem less urgent to readers. Thus, despite more significant critiques of causal factors, texts like "Angry Penguin" do not reach further than level two framing of climate change.

CASE STUDY 3: Dan Gutman's "Roberto & Me"
***Baseball Card Adventures* series**
HarperCollins, 2010
Level 3 Framing

According to frame theory, all human beings are affected by some degree of tunnel vision, which obstructs our ability to change patterns of thinking (Klein; Entman). We are able to see selectively in ways that help to reinforce our own personal worldview. Fiction has the means to combat selective attention to some degree by folding sensitive issues into a plot with wide appeal, perhaps even waiting until the end of the text to broach an issue. In this way, an author is able to entice the reader with an engaging plot, prepare the reader for what is to come in subtle ways, and then use likable characters to introduce difficult social issues in a way that might resonate with a potentially resistant audience.

While many of the texts analyzed for this project broached the topic of climate change within a matter of pages, Dan Gutman's Baseball Card Adventures series represents a body of media that attempts to reach beyond that core group of science enthusiasts and environmentally concerned kids. Gutman's series could be described as a combination of science and sports fiction. The series protagonist, Joey Stosh, has the mysterious power of transporting himself through time by holding old baseball cards. Joey uses this power to meet his idols in person, while also attempting to right the wrongs of history. Gutman's plot has three layers, focusing first on baseball, next on the rescue of a 1960s-era baseball player, and finally on climate change. Being a work of sports fiction, large sections of "Roberto & Me" focus on descriptions of game-

time action. In fact, the book opens by dropping the reader into the middle of a little league game. The consistent return to game details gives young readers what they likely opened the book to find, and helps to avoid the pitfalls of other books with heavy-handed morals. This allows Gutman to keep the reader's interest as he draws them toward the book's message.

The bulk of the text centers on Joey's efforts to travel back to the 1960s in order to warn famed philanthropic baseball player, Roberto Clemente, not to go on a volunteer trip which will end in a fatal plane crash. Although his charity work has nothing to do with climate change, the character of Roberto Clemente spends as much page space discussing the importance of philanthropy as he does playing baseball. For instance, Clemente shares the following quotation with Joey on two separate occasions: "If you have a chance to accomplish something that will make things better for people coming behind you, and you don't do that, you are wasting your time on this earth" (Gutman 104, 117). In turn, Joey shares this quotation with another child, and Gutman concludes the book with the quote, as well.

The consistent theme of helping those who follow prepares the audience for the ultimate application of the principle, through what is framed as an outright climate change disaster. However, the only mention of climate change in the first hundred-and-thirty pages shows the protagonist to be dismissive of climate change as an issue. When Joey and his teammates see a troop of Girl Scouts raising money to save the polar bears, they tease the girls relentlessly. When the girls explain that polar bears may become extinct because of the warming caused by burning fossil fuels, they are met with retorts such as, "boo-hoo. I'm crying," and "ya think if humans were dying off, the bears would go around with cans collecting money for us?" Even Joey joins in the teasing, feeling that he has enough on his mind to "worry about a bunch of bears" (Gutman 7). At this point in the book, Joey's opinion may reflect what the author assumes is his aver-

age reader's position—one of apathy and even annoyance—when confronted with the issue of climate change. By associating this perspective with his protagonist, Gutman creates some solidarity between Joey and the reader before ultimately asking the reader to take on a different view.

This change of perspective occurs when Joey returns from his adventure in the 1960s with a new perspective, having learned the value of philanthropy from Roberto Clemente. Joey is then dragged to the year 2080 by his great-grandson, who wishes to show him the effects of climate change first-hand. Gutman grants his audience the capacity to cope with the troubling details of climate change, and presents the problem in a fair amount of detail. When Joey arrives in the Chicago of 2080, he realizes that the entire country has been plunged into poverty, and nearly all of its inhabitants are suffering from extreme winter heat and the constant threat of death (Gutman 146).

> "What happened to Florida?" I asked.
> "Oh, it's still there," Bernard said. "But it's submerged."
> . . . Wow. That must be thousands of square miles—gone. Houses. Schools. People. (Gutman 145)

It is at this point that both Joey and Gutman's readers realize that there is a deeper lesson to be learned from the story. Bernard goes on to explain the problem in detail, from the use of fossil fuels to the melting of ice caps, the rising seas and temperatures, and the loss of land. He describes a history of oil wars, food shortages, the collapse of society, and the impending extinction of humanity. The easy-going baseball game at the beginning of the story becomes a distant memory in the face of the grim, frightening future that Gutman presents to his audience.

In addition to providing the unsettling details of the climate change problem, Bernard does not hold back when he identifies the cause of the apocalyptic reality that he is living in. The

following passage—in which Bernard asks how people are addressing climate change in Joey's

time—reflects what some see as the desperation of the situation, as well as the resistance that

many others feel when asked to act. Joey defensively argues that,

> "I turn off the lights when I leave a room. I take short showers. My mom and I reuse
> our water bottles. We separate our garbage."
> "You separate your garbage?" Bernard said with a snort. He shook his head
> sadly . . . "We're desperate now. Look around. This is what's going to happen if the
> people in your time don't do something . . . You have to stop burning fossil fuels for en-
> ergy."
> He kept saying you. As if I personally was responsible for ruining the world. "Look, I
> don't burn anything," I said. "I'm just a kid. I can't—"
> "Listen," he interrupted. "In my social studies book, it says that in 1961, President
> Kennedy vowed to send a man to the moon within ten years. And in 1969, we did it . . .
> If you can put a man on the moon in less than ten years . . . how long could it take to
> stop burning fossil fuels and switch to other kinds of energy?" (Gutman 148-9)

This passage goes further than identifying problems and diagnosing causes. Here, Gutman takes

a dig at much of the other climate change literature for children and adults, by ridiculing the

small, convenient changes that are generally suggested as climate change solutions. When Joey

protests that—as a kid—he has very little power to make change beyond shorter showers,

Bernard becomes insistent that Joey has no choice but to drive change, since adults aren't going

to do it. In this way, Gutman frames climate change as a global disaster that cannot be solved

without significant help from youth as drivers of widespread social change.

Bernard's moral judgments about American consumer culture comes across in subtle

ways. For instance, when Joey expresses disappointment at the lack of futuristic gadgets in

Bernard's time, Bernard replies that, "when you get something new—like a present—you're real-

ly happy for an hour maybe. After that, it doesn't mean much. You start thinking about the next

new things you want to get. And it just goes on like that. I decided that stuff doesn't make you

happy. People make you happy" (Gutman 142). This passage serves as a critique of the con-

sumer culture that readers live in, suggesting that readers reflect on the satisfaction that they get

from the endless collection of stuff. In addition to this suggested change of priorities, Bernard

also pleads with Joey to push the use of alternative energies like wind and solar power, rather

than focusing on small, convenient actions. This places Gutman's book in a category that is less

prevalent in children's cli-fi literature. Many texts avoid the difficult question of solving climate

change, and others assume that youth are only able to effect change in the minuscule decisions

that they make in their own daily lives—shutting off the tap while brushing their teeth, for in-

stance. Gutman's book, however, suggests that youth need to push (and push hard) to do noth-

ing short of dismantling fossil fuel dependence and consumer culture as a whole. Thus, Gutman's

book represents a category of cli-fi literature that not only grants kids the capacity to handle in-

formation about climate change, but positions kids as the best hope for stopping climate

change.

As a larger publisher with a broad audience, however, it is possible that the inclusion of

such a strong climate change message would not be allowed if it weren't hidden away near the

end of the book. In fact, reviews of this particular title within a highly popular series demonstrate

that not all parents are happy about Gutman's inclusion of a climate change message. While this

book received mostly positive reviews on Amazon.com (most of which highlighted the series'

ability to draw in reluctant readers, or kids' favorite parts of the book), nearly all of the few nega-

tive reviews focused on the message of climate change:

> Stretched my suspension of disbelief thin
> So this kid who couldn't even be legally employed yet, much less vote, was instructed to
> somehow get everyone to use alternative fuels…Frankly, I'm surprised that Bernard's
> terrifying world didn't give my son nightmares . . . Most of the kids in his target audience
> won't be able to convince their parents to buy solar panels . . . However, the kids MAY
> be able to influence their parents to recycle…discouraging small efforts is not going to
> help anything. (User K.K. Hart on August 17, 2010)
>
> Shameful

This book should have been titled 'Roberto, Me, & the Horrors of Global Warming.' It's one thing for some political hack to spew propaganda on Fox News or MSNBC, but sneaking into a children's book about baseball? Mr. Gutman should be ashamed of himself. (User BH, July 17, 2012)

Beware - Global Warming Propaganda!
I am very disappointed, I was reading this book to my two sons enjoying reading about one of my favorite baseball legends . . . However, about two thirds through the book it turns into a Global Warming doomsday book . . . This is shameful! I thought this book was a safe place from the Global Warming, 'er 'um Climate Change propaganda. I'm just glad I was reading it to them and was able to commentate on how silly it is. If you want your 9 year old son to start lecturing you on how irresponsible you are with your carbon footprint this is the book for you. (User Texas Patriot, November 17, 2014)

Global Warming Sports Book??
My 9 year old son liked it but I totally thought he was joking when he started telling me about them traveling to the future and the horrors of "global warming." I don't think this agenda needed to be slipped into a sports book. (Amazon.com user Craig, May 6, 2016)

Each of these reviewers describes the climate change message in negative terms, using words like "discouraging," "shameful," "propaganda," and "horrors." Three of these reviewers identified themselves as parents of Gutman's readers, reminding us that children's media companies must think about a dual audience—child and parent—when creating media for kids. Although some of these reviews suggest that their children enjoyed the book, the inclusion of the message is still offensive to them. While Amazon users BH and Texas Patriot disagree with the inclusion of this message on political grounds, K.K. Hart suggests that the content is inappropriate for children (and might give them nightmares). Both BH and Craig object to the way that the message was hidden within the larger plot (using words like "sneaking" and "slipped into"). Of course, it may be the surprise of this message that is most disconcerting for those parents who actually read the book. As Reynolds writes, "Fear arising from a narrative that unexpectedly slips behind a reader's defenses is quite different from the experience of consciously choosing a book that advertises itself as frightening" (140). This is true because a reader who sets out to enjoy a

book about sports is not necessarily ready or eager for a scare (particularly such a controversial scare). Thus, a surprise insertion like this one may feel like a betrayal to the reader.

However, the examination of other cli-fi books released by HarperCollins suggests that perhaps the publisher would not have allowed the inclusion of such a message if it weren't tucked so discretely into the last pages of the plot. Indeed, the official description of the book makes no mention of climate change, only inviting readers to "Join Stosh and Sunrise on a journey that will take you into the past, from the excitement of Woodstock to a life-changing encounter with Roberto Clemente—and into a surprising future!" (HarperCollins). User Texas Patriot hits upon what to parents might feel like the biggest betrayal in this text: a message that could subvert parent-child power dynamics. To some parents, the inclusion of this message is wrong because it empowers children to question their parents' choices, and that is an outcome that might scare more than a few adults.

CASE STUDY 4: Independent Eco-Publishers
Sigmund Brouwer's *Justine McKeen* series (Orca Books, 2011 -)
And ABK's *Josie Goes Green* series (Green Writers Press, 2014 -)
Level 3 Framing

Independent publishers like Green Writers Press and Orca Books are allowed some freedoms that large publishers may not have. For instance, as a small publishing house that produces mainly children's and young adult titles, Orca does not need to try and appeal to a broad audience. Instead, the company is able to limit publications to a few key social issues: bullying, indigenous rights, diversity, and care for the environment. Many of these titles—including those in Sigmund Brouwer's Justine McKeen series—pertain directly or indirectly to climate change. Similarly, all of the children's books published by The Green Writers Press focus on environmental issues, though the company is so small that it has only been able to publish a handful of chil-

dren's and YA books since opening its doors in 2014. The first series to be produced by Green

Writers Press was A.B.K. Bruno's Josie Goes Green, which is advertised as a "series about Josie

Garcia, a feisty nine-year-old girl from Brooklyn who becomes a crusader for preventing disas-

trous climate change" (Green Writers Press). These two series share a lot of similarities: they both

feature young student activists (Justine McKeen and Josie Garcia) who educate their schools and

communities about environmental issues, while also campaigning for local environmental pro-

grams. Throughout each series, both of these protagonists are plagued as much by adult resis-

tance as they are by climate change. Despite nearly constant resistance, these characters help

others to understand how their actions are contributing to excess emissions, and push to achieve

their goals with a calm sense of determined optimism.

These series also share some similarities with some of the case studies from larger pub-

lishers. For instance, like Strasser, they both use humor to diffuse the weighty issue of climate

change. This strategy can effectively minimize the intensity of books that are devoted entirely to

social change, rather than only implementing environmentalism as a secondary plot. For in-

stance, both Brouwer and Bruno alleviate the tension surrounding climate change education and

methane emissions through humor related to bovine flatulence (or "cow f-a-r-t-s" as Justine's

giggling classmates refer to it). Furthermore, as a truly quirky character, Justine is a steady source

of comedy for readers. She shows up to school each day wearing absurd hats, seems laughingly

oblivious to any insults that she receives from her classmates, and comes up with a range of ab-

surd (yet effective) ideas for solving problems. Justine's absent-minded personality makes her

seem benign, which helps her to teach students and teachers about environmental issues with-

out making them overly defensive. Justine's seemingly oblivious nature hides her ability to frame

issues in ways that motivate others to join her cause.

In fact, both of these series could act as guides for child activists, highlighting what the authors see as better ways of appealing to one's audience and reaching environmental objectives. The framing of environmental issues within these two series (in addition to many of the books produced by both Orca and Green Writers Press) is in sharp contrast with the others in this chapter. While books like Strasser's give readers a passing explanation for climate change, Bruno's coverage of the problem spans more than ten pages (29-42). Despite the fact that some of the target audience is barely out of kindergarten, Bruno's characters discuss carbon emissions, warming oceans, melting ice, and other issues in reasonable detail, using humor to lighten the load, and repetition to drive the message home.

In contrast, Justine and her friends do not provide a broad overview of the climate change problem, choosing instead to make passing statements like, "Food waste in landfills gradually turns into methane gas which adds to manmade global warming" ("Eat Your Beets" 50), or "All of these cars are sending invisible stuff called carbon dioxide into the air. Too much carbon dioxide is bad for the environment" ("Walk the Talk" 3). However, the series provides more nuanced climate change information than many of the cli-fi titles produced by larger publishers. For example, instead of making blanket statements about climate change, each of the selected books from the Justine McKeen series identifies at least one cause of climate change, and deals with that cause in-depth. Subtle moral judgments are cast upon those causes without excess negativity, and solutions are a strong focus of every text.

Far more than Josie, Justine uses framing to persuade her audience. Justine appeals to each character within the book differently, by presenting issues in ways that target their own personal concerns and desires. For instance, when talking to the school principal about green initiatives that she wishes to bring to the school, Justine always frames her case from the standpoint

of financial savings. When she wants to begin repurposing the cafeteria's leftover food, she sug-gests school faculty think of the garbage bags as filled with money, rather than filled with rotten food. When she attempts to persuade the school's bully, Jimmy Blatzo, to participate, she usually appeals to his insecurity and desire to maintain a threatening image. She does this both through compliments and threats. For instance, in "Queen of Green," Justine acquires Jimmy's help building a greenhouse roof by stating, "…We can't do this without you. We need your strength" (2). In "Thermostat Chat," however, Justine threatens to post a picture of Jimmy in his bunny pajamas if he refuses to help. In this way, Justine demonstrates to young readers that it is important to consider the stakes that will be most important in motivating a particular audience.

Justine also withholds information based on her perceptions of audience needs. For ex-ample, when a local ice cream shop owner (Mr. Tait) shows resistance to green objectives, Jus-tine chooses to withhold her true intentions when requesting the use of his parking lot for a school fundraiser, merely telling him that the kids plan to sell organic vegetables on the lot (and withholding her plans to build a greenhouse for organic, sustainable harvesting). As she tells her friends multiple times throughout the book, "Some things you can't spring on people all at once" ("Queen of Green" 15, 17, 19, 20, 21). Later, Justine holds Mr. Tait responsible for uphold-ing his green reputation by gaining positive publicity from the local paper, and sharing the credit for the greenhouse idea. In this way, she appeals to what Mr. Tait really wants—positive PR for his business—while ensuring that the community holds him responsible for his actions.

Both series also help direct kids on how to deal with an obstacle that is perhaps even more persistent to youth action than climate change—that is, adults. In both the Justine and Josie series, adults continually resist the efforts of young activists, largely based on frames of children and childhood. While Justine usually manages to motivate characters through low-level

framing techniques (like withholding bits of information or catering to audience desires), she of-

ten faces adults who are far more resistant to her suggestions. Most often, these adults balk at

her suggestions based on her status as a child. For example, in "Eat Your Beets," Justine tries to

convince the school cook, Mr. Raymond, to reduce food waste emissions by donating the

school's leftovers to an animal shelter. Through much of the book, Mr. Raymond responds with

open hostility, insinuating that children couldn't possibly know better than adults. "'Not a

chance,' Mr. Raymond said. 'I don't need students telling me what to do when I've been running

this cafeteria just fine for years" (Brouwer 36). Mr. Raymond continues to show his contempt for

youth by demanding continual displays of respect from kids, while blatantly refusing to show the

same respect to youth. Justine responds to adults like Mr. Raymond by using a form of the

stereotype tax, using adults' low expectations of kids to trick them into doing what she wants.

Justine only gains approval for her food donation program when she allows Mr. Raymond to feel

a sense of intellectual superiority over her as a child, by making him believe that the program

was his idea. "'Hey,' Mr. Raymond said. 'I have an idea. Why don't we start collecting leftover

food, put it in the blender, store the food in ice-cream buckets, freeze them and then donate

them to the animals shelter?' 'Great idea,' Justine said. 'I wish I would have thought of

it' (Brouwer 49).

Likewise, in "Queen of Green," Justine takes advantage of a local shop owner's expecta-

tion that children are weak and require the help of adults. When Justine discovers that Mr. Tait is

only pretending to recycle at his ice cream parlor in order to profit off of a green reputation in

the community, she realizes that a straightforward approach may not work to modify Mr. Tait's

behavior. As she tells her friend Michael, "when you criticize people, it only makes them defend

what they are doing, so it's harder to change their habits . . . it's much easier to get people on

your side by asking them for help" (Brouwer 16). Mr. Tait expresses strong resistance to Justine's

green ideals, saying, "don't waste my time with all this talk about green. People talk about green

this and green that because it makes them feel good. The rest of us have jobs to do" (14). In this

way, Mr. Tait demonstrates the position that environmentalists have self-serving motivations,

which are ultimately unproductive, and block others from real productivity.

Similarly, the adults in "Josie and the Fourth Grade Bike Brigade" cynically assume that

local kids are only riding their bikes to school in order to have fun, when they are actually work-

ing to reduce the community's carbon emissions (Bruno 67). Adults also complain about losing

small conveniences when the kids enact their emissions reduction plan (66-71), and they exhibit

defeatist attitudes when talking about how little difference kids and communities can make in

the world (68, 80). For example, Mr. Ford—whose side-mirror was damaged by a young bicy-

clist—tries to dissuade Josie by saying, "Global warming is a global problem. We can't do any-

thing about it in our little community" (68). Other adults allude to beliefs that kids lack the ca-

pacity to understand complex issues, and that they are cute for thinking they can help: "It's nice

that kids in Parkside want to save polar bears in the Arctic, but unfortunately, it's more compli-

cated than that" (80). The adults in the story are so stuck in their own mental frames that they

can't hear the perspectives or ideas posed by others. For instance, when Josie and her friends

attend their city council meeting, she thinks, "Grownups get really excited at these things. They

were shouting and interrupting. Everyone who spoke thought that he or she was right, and that

everyone else was wrong" (78-79). In this way, Josie demonstrates that adults often display many

of the stereotypes that kids get labeled with: immaturity, petty fighting, lack of reason.

Ultimately, both the Justine and Josie series educate youth about how to use framing to

deal with adult resistance, because—in addition to being the protagonists' greatest obstacles—

adults are a key component in making change happen. Unfortunately, the adults in these two

series are rarely persuaded based on a shared desire to stop climate change. Rather, they wind

up going green because their own personal needs are met (needs to save money, feel important

or superior, gain publicity, or increased convenience). However, it is suggested that, as long as

youth can frame their arguments properly, adults' true intentions do not matter. This sends the

message that while adults may have ultimate power and the last word on policy changes, youth

can have a real, impactful role to play in climate action, and they can play that role using frames.

These series provide far more suggestions for solving climate problems, and how youth can ac-

tually frame their environmental messages to others (and especially resistant adults). While the

middle grade cli-fi of larger publishers stuck to benign statements about climate change with

little follow-through, or stronger messaging that was hidden within a larger narrative, most of

Orca's cli-fi books were open about environmental objectives, with authors who worked toward

the empowerment of youth as social actors.

CONCLUSION: Framing Responsibility in Cli-Fi

No two books are alike, and as such, no two messages are framed in exactly the same

way. Ultimately, the framing of both children and climate change varied significantly between cli-

fi books. Large publishers did share a common approach to framing climate change in one sig-

nificant way, however. The vast majority of cli-fi produced by large publishers lacked follow-

through in either assigning responsibility for the execution of climate change solutions, or

demonstrating youth commitment to that responsibility. While some of these texts (like Gut-

man's) identified youth as the world's best hope for change, the assertion of responsibility was

nearly always negated in one way or another, be it the young protagonist's avoidance of the is-

sue or the author's decision to minimize the importance of enacting climate change solutions.

For instance, while the Tardy Boys and their friends spend much of "Angry Penguin" re-

searching climate change under the assumption that the penguins are upset about their de-

stroyed Antarctic homes, this assumption ultimately comes to nothing. In fact, once the Tardy

Boys manage to communicate with the penguins, they learn that the birds aren't upset about

climate change at all.[180] Even Stosh in "Roberto & Me" soon forgets about his mission to pre-

vent climate change once returning from the future. In fact, though he briefly thinks about donat-

ing money to "save the polar bears" near the end of the book (even taking a chapter break to

think it over), he ultimately decides to spend his money on something else and never mentions

climate change again (Gutman 160-2). To his credit, Gutman does include a list of climate

change resources at the end of the book. Still, the lack of follow-through by beloved characters

can send a message to readers, that the issue perhaps isn't threatening enough to warrant ac-

tion. Reynolds suggests that often the children's books that dive most deeply into "social injus-

tice and the need for change" also contain the weakness of an unresolved ending (82). This is

true of the climate change plot-lines in all three of the books selected from mainstream children's

publishers, as it is true of most of the middle-grade cli-fi from those publishers. Perhaps this lack

of follow-through is a means of acknowledging the elephant in the room without actually trying

to remove the elephant from the room (i.e., the problem of climate change is too big for pub-

lishers to ignore, but also too controversial for publishers to commit to a stance). After all,

Scholastic sells books to schools in both conservative Kentucky and liberal California. It may,

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[180] Rather, the penguins are upset that they have not received adequate star status in American films, which is why they have turned up for American Super Mega Idol Star Search.

therefore, be unrealistic to expect such a company to present a clear, consistent stance on a heavily politicized issue like climate change.

Meanwhile, small publishers like Orca Books and Green Writers Press may indeed have less to lose by committing to the topic of climate change, or by informing kids about how to take serious action. Neither Justine McKeen nor Josie Garcia would ever leave an environmental project forgotten or unfinished, but their readers (or at least, their readers' liberal parents) are also a lot more likely to cheer Justine and Josie on in their environmental pursuits. Environmental publishers are able to cater to readers with similar values, though (as smaller operations with fewer resources), they may have more trouble reaching their target audience in the first place. Therefore, perhaps series like Justine McKeen and Josie Goes Green are good options for kids who develop an interest in climate change after reading more mainstream cli-fi.

Of course, the framing of climate change found in mainstream cli-fi has its benefits, as well. For instance, Gutman's draws kids in with a favorite subject—baseball—before moving on to discussions about ethics (as demonstrated by one of baseball's beloved heroes). Those discussions about morality act as a primer for the incredibly difficult topic of climate change. Gutman keeps the discussion short, full of adventure, and hidden within an otherwise uncontroversial plotline. Meanwhile, Corwin and Strasser keep all discussions light and fun, either avoiding all negativity, or smothering it with humor. For many readers—and particularly those who are more resistant to the ACC perspective—this light, brief approach to dropping climate change into conversations may be the way to go.

Ultimately, the split in climate change framing within children's cli-fi texts reflects the split in adult perceptions of children, or at least, a recognition that American audiences have split perceptions of children. While some cli-fi authors and publishers are willing to provide ample

information for youth so that they can understand and participate in finding solutions, others try

to protect children (or shield their profits) by softening the issue. Keeping children in this state of

blissful ignorance requires cooperation from adults across multiple domains—family, education,

publishing, and media production. Such an effort may not be malicious or even entirely con-

scious most of the time; rather, adult society merely creates policies that are based upon com-

mon mental frames and the collective conscience, or "the set of shared beliefs, ideas, and moral

attitudes which operate as a unifying force within society" (Jary and Jary 93). Publishers and cre-

ators of children's fictional media play a large role in protecting this perceived state of childhood,

since media for children has the power to both inform children about the world and shield them

from it. By framing the issue in a particular way—highlighting some pieces of information, ex-

cluding others, and presenting all information from a specific perspective—mainstream children's

publishers are able to meet the complex task of both protecting childhood innocence and facili-

tating a desired level of learning for young readers (while also staying in the relative good graces

of readers with a variety of perspectives).

In the case of climate change, this delicate balance involves the provision of just enough

information to make children aware of the problem, but not so much information that children

become excessively worried about the problems of our planet. Unfortunately, this delicate bal-

ance may leave children with too little information to feel empowered as agents of change in the

face of a real threat—one that they may worry about anyway. This is especially true since many

youth in coastal regions and the global south are already experiencing the more threatening ef-

fects of climate change (McMichael 99; Voelker 2197). One way to see this imposed ignorance is

that it protects the assumed carefree space of childhood, leaving adults to worry about (or per-

haps just as likely, ignore) the problem of climate change. On the other hand, the imposition of such ignorance could be seen as unfairly relegating children to a further state of powerlessness.

The texts in this chapter are often amusing, informative, suspenseful, and sometimes even inspiring, but none of them are likely to win any literary awards. Perhaps an increase in literary middle-grade cli-fi (more along the lines of Paolo Bacigalupi's critically-acclaimed YA novel, Ship Breaker) would advance the objectives of these books by getting them into English classrooms. However, Corwin's books are already a hit in school libraries, and Gutman's series is extremely popular as well. It is possible that exposure to the topic is an important first step, even if the informational approach is less than perfect. The very existence of the cli-fi genre is a sign of that increasing exposure. As Reynolds writes, "Although fictions that feature creative and participatory young people represent a small percentage of the YA market, those readers who have the chance to find and read them will have internalised stories that can help them interact with culture . . . in dynamic ways" (Reynolds 87). Though Reynolds wrote this about young adult literature, I believe the same holds true for cli-fi, a genre that is already taking substantial risks by raising a controversial issue in the first place. Readers may have to work a bit harder to find cli-fi from independent publishers, but perhaps the search is worthwhile.

CHAPTER 4:
SPEAKING OUT AND SIGNING ON: YOUTH NAVIGATION OF PUBLIC CLIMATE CHANGE DISCOURSE AND SOCIAL MEDIA FOR CLIMATE AC-TION

"The people who are ultimately affected by climate change, uh, are young people, of course. And now some kids, yes, kids are taking legal action to protect their future, and they're doing so with a federal lawsuit." — CNN reporter (April 30, 2017)

"The change that we need is not going to come from a politician, from an orangutan in office, it's going to come from something that's always been the driver of change - people power, power of young people." — Youth environmental activist and plaintiff, Xiuhtezcatl Martinez, Rolling Stone interview (McPherson, July 19, 2017)

"I just want to say to kids like me, that you can make a difference. It does work."
— Youth environmental activist and plaintiff, Avery McRae (Our Children's Trust)

INTRODUCTION

When a group of youths decided to take on the United States government on August 12, 2015 (International Youth Day), they were representing a subordinated group in America. Not only are kids physically smaller and weaker than adults, but they are also a group of humans who are expected to obey adults in all matters. Children's social status and power are nearly non-existent in American society when compared with adults. Thus, when these twenty-one youths (ranging in age from eight to nineteen in 2015) filed their climate lawsuit against the United States government and its president (Barack Obama at the time), it truly was a landmark case that placed a unique spin on the demand of citizens for climate justice. As explained by the eldest and lead plaintiff in the case, then nineteen-year-old Kelsey Juliana (one of two youths who most often speaks to the public):

> Our nation's top climate scientists . . . have found that the present CO2 level is already in the danger zone and leading to devastating disruptions of planetary systems. The current practices and policies of our federal government include sustained exploitation and consumption of fossil fuels. We brought this case because the government needs to immediately and aggressively reduce carbon emissions, and stop promoting fossil fuels,

which force our nation's climate system toward irreversible impacts. If the government continues to delay urgent annual emissions reductions, my generation's wellbeing will be inexcusably put at risk.

This passage hints at an approach that much of the young plaintiffs' communication exhibits: the mixed display of youth competence and vulnerability. By explaining the science behind anthropogenic climate change, Kelsey demonstrates a level of personal concern and competence that might counteract assumptions about the coercion of youths to participate in the case. By highlighting the "inexcusabl[e]" risks to her "generation's wellbeing," she evokes the adult frames of children that mandate the protection of children. As many of the examples in this chapter will demonstrate, the balance of these strategies largely depends on the age of the plaintiff speaking, and the audience for their communication efforts.

Meanwhile, the lawsuit put the government and the fossil fuel industry in a strange position, one that provided a unique opportunity for this research. While adults' public statements or messages about children tend to focus on a mix of youth protection and empowerment, here was a situation in which youths threatened the financial well-being of both the government and the fossil fuel industry. Though the responses of the defendants have been shrouded in legalese, it was time to dig through those densely-worded documents, press releases, and media soundbites, and find out whether the "kid gloves" came off in attempts to delegitimize the youths and their case. Would the young plaintiffs be treated like any other adult plaintiffs in communications from judges, their own representatives, and the defendants? Were they merely figureheads for a novel approach to making change, only to have the "real" actors in the case speak over their heads and ignore them entirely? What part did they actually have to play in lawsuit, and how would their participation in an official capacity differ from their participation in other spheres, perhaps with other kids?

The proceedings, news coverage, press releases, social media posts, and public state-

ments related to this case demonstrate that the treatment of the youth plaintiffs vary between

the adult parties involved. Such variance is likely due to those adults' varied cognitive frames of

youth and climate change. While some—like the plaintiffs' primary lawyer, Julia Olson—demon-

strated a general respect for the plaintiffs as competent citizens and powerful social agents, oth-

ers—like the defendants—tended to dismiss or ignore the plaintiffs entirely in dealings with the

case. It is extremely difficult—if not impossible—to detect how much of the youth participation

and communication in this case stemmed directly from children and teens, and how much was

adult-driven. However—just as we might examine Donald Trump's three a.m. tweets to get a

stronger sense of his perspectives than official White House statements might provide—the ex-

amination of plaintiffs' less formal social media presence can lend a richer understanding of their

participation in the climate change movement.

Thus far, the absence of youth perspectives within this project has been a testament to

the level of protection and censorship that keeps American children isolated, or "islanded" from

adult culture (Gillis). While Institutional Review Boards make it difficult to observe real children

for research, COPPA laws also make it difficult for children to participate and openly share their

views online. Therefore, the laws meant to protect children also serve to stifle their voices both in

online spaces and in research. Like some of the previous chapters, this chapter touches upon the

ways that youths are used by adults to persuade other adults to choose a particular stance on

climate change. For instance, it is clear from many of the forums that follow news stories about

the youth climate change lawsuit that many adults assume that kids are being manipulated, co-

erced, or brainwashed into participating in the climate change movement. However, the climate

activism of the twenty-one youth plaintiffs in Juliana v. United States (commonly known as the

Youth Climate Lawsuit) is multi-layered, and cannot be reduced to the present case alone. For instance, many of the plaintiffs come from activist families or cultures with deeply-rooted values connected to the natural world. Others come from families that generally oppose their perspectives on climate change. Several of the plaintiffs were speaking up about climate issues for years before the case was filed. Some of the youths who speak up about climate change do so in adult-moderated forums where expression is limited. Others choose to express themselves through social media—though they may or may not need to get creative about accessing social media due to their age-based restrictions.

This final chapter is dedicated to the complexities of youth participation within the climate movement, and the ways that youth activists must navigate communication with adult and youth audiences. In particular, this chapter will focus on youth activists who are actually suing their government to push climate action—a decision that swiftly catapulted these youths from the private to the public sphere, thus making them far easier to observe. After examining the formal and informal presence of these young plaintiffs (in the media, public appearances, and online), I argue that youth social actors face pressure to prove both their authenticity as children, and their competence as citizens who can participate in public climate change discourse alongside adults. Analysis of plaintiff communication demonstrates the use of versatile communication styles and appearance to navigate those conflicting expectations, as well as efforts to work within (and defy) adults' frames of children and teenagers in order to reframe the debate and enact social change.[181] Furthermore, analysis of defendant communication demonstrates the adult de-

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[181] It is important to note that almost all of the twenty-one plaintiffs involved in this case have some kind of online presence that displays the activist journey of a unique individual (though some tend to be more private). I truly wish that I could have included in-depth discussions of each of these individuals, though space would only permit the selection of a few plaintiffs as case studies. Other plaintiffs will be mentioned on occasion. For more information about the rest of the plaintiffs and their fascinating stories, please visit https://www.ourchildrenstrust.org/federal-plaintiffs/ (Our Children's Trust "Meet the Plaintiffs").

sire to use frames of children to suit particular agendas, while dismissing youth contributions to

climate change discourse.[182]

BACKGROUND

Framing in the News

Given the unusual nature of this lawsuit, extensive national news coverage might be expected. After all, kids as young as six were suing the most powerful forces in the entire country… the people who tell their parents and their parents' bosses what to do and how to live. And yet, major news media outlets remained relatively quiet in the months following the filing of the suit. In fact, within a month of the suit being filed, only two articles were published by the top seven US news outlets. While articles about the lawsuit seem scarce, the title and tagline of each of these articles speaks volumes:

> HuffPost, August 12, 2015: "Youth Sue Obama Administration Over Climate Change" — "We have a moral obligation to leave a healthy planet for future generations" (Taylor).

> Fox News, August 19, 2015: "Using Kids to File Environmental Lawsuits: Fair or Exploitative?" — "In what has become an increasingly used tactic, environmental organizations are using teens and children as litigants in its lawsuits aimed at slashing the use of fossil fuels" (Nikolewski).

Within the titles and tagline of these articles, both news outlets connect with frames of youth as vulnerable. However, HuffPost highlights quotations that evoke this frame in support of the lawsuit, while Fox News uses the frame to question the morality of the lawsuit. HuffPost connects with this frame by highlighting adults' responsibility for sustaining the environment for "future

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[182] Note about the selection process: This chapter did not warrant a separate appendix for the selection process. The lawsuit was chosen as a timely, nationally-recognized lawsuit pertaining to both climate change, children, and youth agency/social action. The vast majority of the news articles observed for this chapter were produced by the same seven news sources as were used in Chapter 2 (see appendix F), though a few extremely relevant articles were selected from other sources.

generations," Fox News focuses on blaming those adults who might exploit youth vulnerability to achieve environmental objectives. This chapter will demonstrate that the manipulation of youth frames for opposing purposes is not uncommon in news coverage, despite the limited amount of coverage that the lawsuit has received over the last two years. News outlets didn't seem to catch up in the months following the suit filing, either. After six months, only one additional article was published (by Breitbart News).

Of course, this lack of coverage could have multiple explanations. For instance, perhaps the news did not spread quickly to journalists, though the organization that filed this lawsuit with the plaintiffs—Our Children's Trust—sent out a press release the day that the suit was filed, and nearly everyone affiliated with the case made announcements on social media if they were old enough to do so. Furthermore, the government is frequently sued, and the media may have adopted a "wait and see" attitude until it became clear that the case wasn't going to be dismissed early on. Alternatively, a lack of coverage in the first few months may demonstrate a somewhat dismissive attitude toward the case and the youths involved. It is not uncommon for the media to greet such actions by youths with either disinterest, or a patronizing "gee, isn't that cute" mentality. As some scholars suggest, children are positioned as subordinate in society in part through their restriction to limited roles in the news and other media; these limited roles leave youth without a voice, while also perpetuating the construction of youths as cute, naive, and dependent on adults (Kaziaj 430; Carter).

One final possible explanation for this lack of media coverage may have to do with the target of the lawsuit. Despite the plaintiffs' claims that the initial defendant (the Obama administration) was not doing enough to combat climate change, Obama was seen by many Democrats as the most environmental president in recent history (New York Magazine). Two changes in the

list of defendants (in January 2016 and January 2017) seemed to correspond with an increase in news coverage. First, the coverage of the suit took off somewhat after January 13, 2016, when most of the world's fossil fuel giants successfully pleaded to join the case (albeit briefly) and fight side-by-side with President Obama, stating that "plaintiffs' call to phase out fossil fuels is a direct threat to [their] businesses" (Juliana v. US).[183] Thus, in addition to taking on the most powerful governing forces in the world, the plaintiffs would be taking on some of the most powerful cor- porations in the world, as well.[184] Among the top four news outlets consumed by a liberal majori- ty (CNN, HuffPost, NY Times, and Washington Post), only one (HuffPost) covered the lawsuit be- fore it was joined by the fossil fuel interveners, though 90% of HuffPost's ten lawsuit articles were published before the addition of fossil fuel interests to the case.

Another interesting shift in the case happened almost exactly a year later, on January 20, 2017, when Donald Trump was sworn in as the forty-fifth President of the United States. Presi- dent Obama's name was crossed off of the list of defendants, and in his place, President Trump's name was written in. While President Obama openly acknowledged his belief in anthropogenic climate change, President Trump openly called it a hoax.[185] While Obama and the fossil fuel in- dustry seemed like strange bedfellows, the partnership of Trump and the same industry seemed far more natural, given Trump's general support of the fossil fuel industry, his denial of anthro-

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[183] The motion to join the case was granted by Magistrate Judge Thomas Coffin of the federal district court in Oregon. The new fossil fuel defendants also filed a motion to dismiss the case, but that motion failed.

[184] These fossil fuel corporations included the American Fuel and Petrochemical Manufacturers (AFPM), the American Petroleum Institute (API), and the National Association of Manufacturers (NAM). The AFPM represents Exxon Mobil, BP, Shell, Koch Industries, and nearly all other US refiners and petrochemical manufacturers. The API represents 625 oil and gas companies. It is important to note that all three of the fossil fuel giants chose to drop out of the suit only eighteen- months later. Though no explanation was given, the groups left the suit on or just before a court deadline mandating that they turn over any company climate data.

[185] See the following Twitter accounts for evidence of respective positions on climate change: @BarackObama, @Real- DonaldTrump.

pogenic climate change, and his general lack of interest in environmental issues. The entire tone of the lawsuit seemed to shift to something even more combative: a troop of kids against a brash, climate-denier president and an army of fossil fuel giants.

This shift may have helped to boost news coverage of the suit, since the children's suit against a popular—and comparatively environmental—liberal president may not have been too enticing to liberal readers (perhaps a little like the discomfort of loved ones quarreling).[186] In fact, although Washington Post has published ten articles on the lawsuit (which ties with HuffPost for the publication with the most trial coverage), none of those articles was published before it was clear that the Trump administration would be named as the new defendant. In fact, the title of the Post's very first article on the topic mentions Trump by name: "Trump Could Face the 'Biggest Trial of the Century' — Over Climate Change" (Harvey). Likewise, in CNN's first attempt to cover the trial (a November 2016 article entitled, "Kids are Taking the Feds — and Possibly Trump—to Court over Climate Change"), reporter John D. Sutter all but admits that the naming of President Trump made the case more newsworthy. Sutter writes,

> Mary Wood, faculty director of the Environmental and Natural Resources Law Center at the University of Oregon, told me earlier this year that the lawsuit is 'the biggest case on the planet.' However, that was when the case was aimed at Obama, who has tried to stake his legacy on climate action. The case is likely to be all the more significant under Trump, who has called climate change a "hoax" and has threatened to roll back many environmental regulations.

As this passage demonstrates, even though Sutter was informed about "the biggest case on the planet," CNN chose not to cover the case until it was clear that Trump would be named as a defendant in place of Obama.[187]

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[186] Audience political affiliation was determined by a Pew Research Center report on the primary news sources chosen by conservative and liberal Americans in 2014 (www.journalism.org/2014 (Mitchell at al.).

[187] Sutter makes this clear in the article by stating that "Trump will not have any wiggle room to get out of the lawsuit even though it was filed with Obama and members of his Cabinet as named defendants."

Even after this shift, the leading news outlets consumed by conservatives (Fox News, Breitbart News, and Conservative Tribune) continued to ignore the story for the most part, with only eight articles between them over more than two years.[188] When they did cover the lawsuit, such coverage was more frequently negative. For instance, Fox News and Breitbart News were likely to suggest that youth plaintiffs had been brainwashed or exploited by adults, while sources popular with liberals frequently focused on frames of child protection, vulnerability, or cuteness.

With a relative increase in news coverage came an increase in commentary from the general public. Some commentators cheered the kids on or lamented the government's disregard for future generations. Others assumed that the plaintiffs had either been coerced or brainwashed into participating in the suit, with some deeming the suit "child abuse" (Sutter). Consider the following quotes from the reader forum following Sutter's November 2016 article:[189]

> A. Bunker: "Ahh, isn't that cute. 8 years old and already brain washed" (November 11, 2016).
>
>> Response by Alamosaurus: "8 years old, and already smarter than you" (November 11, 2016).
>
> Hippocampan: "Children have been LIED to about global warming. Trump will tell them the TRUTH!!!!!!!!!!!!!!!!!!" (November 11, 2016).
>
> blksambo: "Kids can be manipulated so easily, this is a fa.rse" (November 11, 2016).
>
> candlewycke: "1. Its sad that an 8 year old is being allowed to use the courts to determine complex, climate policy. 2. It is sad that we call a 20 year old a 'kid'" (November 11, 2016).
>
> J. Purple: "I always find it disg_usting when people use kids as pawns" (November 11, 2016).

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[188] Breitbart News published five articles related to the lawsuit, Fox News published three related articles, and Conservative Tribune published zero articles on the suit. Liberal-leaning news outlets tended to publish more articles and TV news reports on the lawsuit generally: CNN (7), HuffPost (10), NY Times (5), and Washington Post (10).

[189] All forum comments focused on children or childhood (and posted by April 29, 2017) were included in this list. These comments can be seen at the following article link: www.cnn.com/2016 (Sutter "Kids are Taking the Feds").

4ltellthetruth: "Sure it's the kids .Hmmm where they getting all the money lololol" (November 12, 2016).

Jabbadonut: "So, kids, let me see. When you become an adult, you want to live in a cave, or a hole in the ground, or cardboard box, and live off of tree bark and whatever squirrels you can catch? Is that right? You have been tricked by some evil adults who've made you believe there is some kind of actual problem that is so horrible we all have to give up civilization. Grow up, do some research. You'll realize it is a BIG LIE you are buying into" (November 12, 2016).

Balatonian: "Kids must just remain good boys and girls, go to school and study. When they become responsible and sensible adults, then they can participate in voting for and criticizing their adult peers. Until then, pipe down" (November 14, 2016).

Tyrannasaurus Rex: "Can't blame them for wanting to secure their future ability....TO LIVE LIFE" (November 14, 2016).

SoulMusic34: "These kids are fighting for what they believe in and nothing else matters (February 16, 2017).

Jeff M: "This borders on child abuse. Someone needs to remind the adults behind this that the constitution prohibits the government from establishing a religion… Even a secular one like man-made climate change… Sigh" (February 16, 2017).

Very few of the comments following this article seemed to support the lawsuit, and some of the most provocative words within unsupportive comments evoke common frames of children and childhood: "cute," "brainwashed," "manipulated," "pawns," and "tricked." Essentially, many of the commenters on this forum assume that children lack the capacity to participate in policy decisions surrounding such a complex issue.

Perspectives on Children's Participation Rights

Perhaps few of the commenters illustrate the perceived inability of children to understand or participate more than commenter Balatonian: "Kids must just remain good boys and girls, go to school and study. When they become responsible and sensible adults, then they can participate in voting for and criticizing their adult peers. Until then, pipe down" (November 14, 2016). Here, the commenter voices the perception that being a "good" child means to remain quiet and study, and that participation is reserved for adults, who are generally assumed by this

commenter to be "responsible and sensible." Dozens of other comments within this forum

(mostly bickering about politics, religion, and climate change science) demonstrate, however,

that what is deemed "sensible" is rather subjective, and thus, the line between ignorance and

sensibility in people is also a bit hazy. This leads to an all-important discussion about the rights of

youth to participate in political discussions, which has been greatly debated for hundreds of

years.

> According to children's rights scholar, John Wall,

> Children and youths under the age of eighteen constitute a third of all humanity. How-
> ever, until recently, few believed that they should have any rights at all . . . As a result,
> when we think about human rights today, we tend to think first and foremost about
> adults. Children and youth are often assumed to have rights only in a derivative or sec-
> ondhand way. (1)

> One powerful way that Wall makes this point is through a discussion of youth voting

rights (or lack thereof). While some scholars suggest that minors lack adequate "understanding

of the nature and significance of issues that are the subject of public and political debate" (Wing

Chan and Clayton 542), Wall disagrees, asserting that "knowledge requirements are in a sense

inherently undemocratic" and have been used to deny participation rights to subordinated

groups throughout history (135). While other groups have fought against such standards to gain

suffrage, youths are rarely even consulted as a courtesy regarding policy decisions that concern

them. As Wall writes,

> The fundamental problem is that rights are based on supposedly "adult" competencies
> for reason, debate, and independence. As long as such is the case, children will have
> rights in only secondhand ways. But are adults really so autonomous and independent?
> And are children really the opposite? Or is it not more accurate to say that no one is fully
> an island to oneself, just as no one is fully dependent on others? It may be time for this
> adult-child divide to be overcome. (Wall 35).

> Although in-depth discussions about youth rights are beyond the scope of this project,

many of the examples in this chapter demonstrate that age-based arguments about competency

are unreliable and often inaccurate. If the texts examined in this chapter are any indication, it would be very difficult to argue in favor of generalizations about competent adults and incompetent young people. Of course, "climate change competence" might be framed quite differently depending on one's own perspective on the issue. However, if the ACC perspective is to be believed, then these plaintiffs regularly display an extensive understanding of the issue that the current president seems to lack. Indeed, "no one is fully an island to oneself," and perhaps there is something to learn from these youths who attempt to tear down the adult-child divide and push their way into the public discourse on climate change.

CASE STUDY 1: Levi Draheim and Avery McRae

As the two youngest plaintiffs in Juliana v. United States, Avery McRae (eleven years old in April, 2016) and Levi Draheim (nine years old in April, 2016) received more attention than most other plaintiffs. Levi's early love of nature and animals is clear in the many that his mother has posted on YouTube.[190] In videos documenting Levi's birthday and family outings, Levi speaks frequently of his passion for nature. Levi's mother also posts a number of videos about what her son is learning at "school" (Levi was homeschooled at least during the time of these videos, between 2013 and 2015). Interestingly enough, all of the videos about Levi's education focus on the natural world. Levi enthusiastically demonstrates for the camera how polar bears cross thin ice, how doves make their morning call, and how starfish breathe. He also recites a poem about ducks, displays projects about bats and groundhogs, and introduces a vulture at the zoo. His mother is also officially employed as a teacher at a progressive school in Florida where parents and their homeschooled kids are encouraged to come use center resources to learn at their own

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[190] To view some of these videos, please visit Leigh Ann Draheim's YouTube channel: www.youtube.com/channel/UCky-JiUXWj8UQrQJAWXdGltg .

pace and attend drop-in, experiential learning classes. The school—called If(Space)—has the tagline, "anything is possible" (If(Space)). The If(Space) website describes the school using words like, "hands-on," "project-based," "child-led problem-solving," and "unbounded creativity." It isn't difficult to believe that a child growing up in a learning environment that prizes child-independence and extensive learning about the natural world would opt for participation in serious efforts for environmental change at an early age, if the opportunity to participate was presented to him or her.

Avery McRae has bright, cheerful eyes and chestnut hair that falls in a slight wave beyond her shoulders. Media clips of the young activist reflect her quick wit, and her ability to supply a snappy response to the questions that adults throw at her. For instance, she is frequently asked about how she came to care about the issue of climate change, and is always ready to describe her environmental journey. As she states in a YouTube video posted by The Northwest Center for Alternatives to Pesticides (NCAP),

> Well, it started when I was in first grade, maybe it was kindergarten, and I read a book about snow leopards, and realized they were endangered. One morning I said, 'Mom, I have to help these animals!' And she said, 'Why don't we throw a party for them, and we can find an organization to give the money to, and try and see how much money we can raise.'[191]

From there, Avery hosted a number of parties for endangered animals, and received a regional award for taking and inspiring action in her community. She met Julia Olson of Our Children's Trust (OCT)—along with other future fellow plaintiffs—at a camp run by OCT in 2013.[192] Before joining a national case, Avery helped to petition the local government for a climate action plan.

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[191] View the complete video at the following web address: www.youtube.com/watch (Northwest Center for Alternatives to Pesticide)..

[192] The goal of this camp was to educate children about engaged citizenship and standing up for their rights. It could be argued that—just as not every child is interested in attending football camp or cheer camp—this camp undoubtedly attracted certain personality types. Avery, for instance, had a clear interest in social action before participating in OCT's camp.

Little Plaintiffs are Better Seen Than Heard

Over the years since Levi's first YouTube videos and Avery's first fundraising party, the two moved from local to national spheres of activism and participation, which is how I found myself standing before the Supreme Court Steps on April 27, 2016. It was 8:50 a.m., ten minutes before the Youth Climate Lawsuit Speak-Out was set to begin in Washington, D.C. As I looked around at the small crowd gathered before the Supreme Court steps, I noticed that the vast majority of attendees were adults and members of the press. The crowd continued to build, and the youths went down the line, practicing their statements. The youths shifted back and forth between practicing their statements and joking around with each other. Although Avery was not present at the event,[193] fourteen of the other plaintiffs—including Levi—were in attendance. He stood in the first position in a long line of plaintiffs, with the pillars of the Supreme Court acting as a backdrop.

The plaintiffs and their lawyers, mentors, and activist partners were gathered in Washington D.C. on the weekend of the People's Climate March, which also marked the hundredth day of Trump's presidency. Our Children's Trust publicized two D.C. events involving the youths, which were scheduled around the march. The first of these was The Youth Climate Lawsuit Speak-Out. Our Children's Trust promoted the Speak-Out in part through a Facebook invite, which stated that the event would give youths the opportunity to "speak out from the steps of the United States Supreme Court, where their case may eventually be heard. They will share the

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[193] This was perhaps a funding issue, since I received multiple emails asking for donations to get all twenty-one youth to Washington D.C. for the event. Please note that as a researcher, I abstained from contributing to the request for donated travel expenses. However, prior to my decision to research the lawsuit, I did make a small donation to Our Children's Trust. I am on the organization's mailing list for research purposes.

latest updates on their case, as well as song, fiery speeches and invitations to show your sup-

port."[194]

The chatter of the small crowd began to die down as Kelsey Juliana approached the

podium that had been set before the Court house steps. After acquiring the attention of the

crowd, she began:

> We are here on the steps of the Supreme Court to talk about a lawsuit. I'm sure you've all heard, Juliana versus the United States. Myself and twenty other young people, many of whom are right here behind me, are suing Donald Trump and his administration . . . We are not alone. People around the world are standing with us. Support is pouring in. Politicians, scientists, lawyers, parents, teachers, children, and so many others are adding their voices to this movement. Today, not only will you hear from fourteen of the twenty-one plaintiffs, but you will hear also from their lawyers, and four supportive US Senators as well as three amazing partners.

The display of adult support that Kelsey described was well-represented at the event,

and in fact, the event title—Youth Speak-Out—turned out to be a bit of a misnomer. Although

Kelsey (the eldest and primary plaintiff) hosted the event, and both she and another plaintiff ex-

perienced with public speaking did give some fiery speeches, the rest of the youths said nothing

in their own words. They stood in a line, providing their names, where they live, and (of course)

their ages for the crowd, and then they each read a short snippet of the group's "favorite pas-

sages from [Judge Aiken's] landmark decision" to let the lawsuit proceed. The rest of the event

(over two hours) was filled with speeches by adult activists, lawyers, and senators, most of them

speaking at length about how adults must listen to children's voices. Here are some passages

from those speeches:

> <u>Julia Olson (the lead lawyer in the lawsuit, from Our Children's Trust):</u> I'm here to elevate the voices of these young people and all of our children."

<u>Senator Jeff Merkley (D-OR):</u> Right up here, we have an incredible set of climate champions…and, let's give them a little bit of applause for being this bold, important voice! . . . So I just applaud all of you for taking this action ("wooooooo!"). I'm so proud of you, so appreciative of you, and let's go, and together, with them, with our court case.

It was not entirely clear whether the adults or youths who spoke at the event recognized the incongruity of a "Youth Speak-Out" event crammed with adults speaking about the importance of letting youth speak out. Neither is it clear whether the event was filled with adult speakers because A) the adults—primarily politicians and lawyers—self-importantly denied youth the time to speak, or B) the twelve of fourteen plaintiffs who did not speak were exercising their agency in choosing not to participate more extensively in the event.[195]

The youngest plaintiffs in the case seem to be of most interest to both the media and the general public. Even as a researcher, I arrived at the Youth Speak-Out eager to hear from the younger plaintiffs, especially since those under the age of thirteen are unable to hold social media accounts, and therefore, are more difficult to follow online. Although Kelsey is the lead plaintiff in the case, and Xiuhtezcatl is perhaps the most vocal online and in the media, the youngest plaintiffs—Avery and Levi—seem to gain just as much attention from the media. Take for instance, the following newspaper article headlines:

"Eight-Year-Old Takes US to Court Over Climate Change"[196] (Palmer, Climate Change News, 2015)

"The Eleven-Year-Old Suing Trump Over Climate Change"[197] (O'Rourke, The Atlantic, 2017)

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[195] It is important to note, however, that my research has not led to the conclusion that OCT is generally guilty of stifling the voices and perspectives of the youth plaintiffs. Rather, Julia Olson and OCT frequently seem to leave the spotlight open for the youth plaintiffs during public appearances, in online video posts, etc. Therefore, it is unclear whether the this particular event was an anomaly, based upon an over-scheduling of other adult speakers (or those speakers talking longer than planned), etc.

[196] View the full article at the following web address: www.climatechangenews.com/2015 (Palmer).

[197] View the full article at the following web address: www.theatlantic.com/science/archive (O'Rourke).

"Donald Trump Being Sued by 9-Year-Old Levi Draheim Over His Climate Policies"[198] (Australian Broadcasting Corporation, 2017).

"9 Year Old Boy Persisting in Suing Donald Trump Over His Climate Policies"[199] (Nuclear News, 2017).

Not every youth plaintiff has received the same focus in the news media. I was therefore disappointed to discover that Avery, Hazel, and Sahara (twelve) were not present, and Levi was not among those "speaking out."

The attention that the youngest plaintiffs receive could be related to any number of factors. One possibility is that the interest that the media and the general public have in the youngest plaintiffs is related to common adult frames of youth. It is novel to see young children in unusual situations. Adults often revel in the "cuteness" of children "playing" at adult roles. In fact, some reporters seem to both make and seek particular kinds of statements from the younger plaintiffs, which will highlight innocence, cuteness, or vulnerability. For instance, on April 30, 2017, Levi Draheim, Kelsey Juliana, and Julia Olson were interviewed on CNN. The reporter begins by asking the twenty-one-year-old Kelsey for her reaction to the People's Climate March over the previous weekend. Next, she tells Levi that he looks "like a happy camper," and giggles at his grinning response. Despite the acknowledged cheerfulness of Levi's mood, the reporter first asks him to "help us understand here, what is, Levi, your biggest fear when it comes to the environment right now?" Levi provides a competent explanation of his concerns about eroding dunes in his Florida hometown, as well as increased wildfires. Without acknowledging the information provided by Levi, the reporter then jumps immediately back to Kelsey: "Kelsey, when you listen to what his concerns are, help people who don't understand what human causes are, are

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[198] View the full article at the following web address: www.abc.net.au/news (Duffy).

[199] View the full article at the following web address: https://nuclear-news.net/2017.

doing to the environment…help them to understand what we can do to alleviate his fears and turn things around."

While the reporter's questions to Kelsey and Julia are brief and professional, she seems to react differently to Levi, laughing and calling him silly names like "ma' friend," and a "happy camper." Rather than asking him to identify problems related to climate change, she asks him to relay his fears—thus pushing him to frame himself as a vulnerable, fearful child. Furthermore, she does not allow him to share solutions to the problems he expresses, and instead turns to someone older for ways to address the fears of the child present (never mind any fears of Kelsey or their lawyer).[200] In short, this reporter is talking to him like adults so often talk to younger children. She also chooses to focus on his fears, while asking Kelsey—who is a legal adult—how Levi's fears should be relieved. In this way, the CNN reporter frames Levi in the way that most adults expect children to be framed—as cute and vulnerable. This kind of coverage matters because—while it seems to elevate youth perspectives on the surface—it perpetuates traditional frames of youth at the same time. When groups in power talk about granting more rights to subordinated groups or make token gestures toward those rights without taking any meaningful steps to actually grant those rights, it creates the illusion that things are changing for the better. Illusions of increased equality or rights can lead to the suppression of those who still feel disempowered.

The Struggle to Be Taken Seriously

One way that even child advocates might unintentionally perpetuate traditional frames of youth is through their descriptions of children. For instance, just before the Youth Speak-Out

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[200] To the reporter's credit, however, she does give the youths more time to speak than their adult lawyer, who was also in attendance.

began, I overheard two women talking about how "cute" the youth plaintiffs looked all dressed

up in their little suits. The ascribed cuteness was clearly meant to compliment the kids, and both

of the women seemed generally supportive of the lawsuit and the plaintiffs. In fact, one of the

women identified herself as a plaintiff's mother. Yet, the conversation struck me as symbolic of

one particular struggle that subordinated groups often face. When children work toward the

kinds of accomplishments usually reserved for adults, labeling them as "cute" minimizes their

efforts, as if they are only playing at affecting change in the world. This is because the word

"cute" has both a surface meaning and a(n often unconscious) subtext. While the term is often

directed toward individuals and objects with an air of sentimentality or endearment, it may simul-

taneously conceal what Sianne Ngai calls "contempt and even a touch of disgust . . . Cuteness

seems to be a disavowal — at once a repression and an acknowledgement—of otherness" (60;

Merish 194).[201]

     This issue was broached by the mayor of Eugene, Oregon, where some of the youth

plaintiffs (along with OCT) first aimed to affect climate change policy in their local government.

When talking about the kids visits to the city council, Mayor Kitty Piercy stated that,

> They came, they were very well prepared, they were very well spoken, they knew what they wanted, and why they thought it was important. They came again, and again, and again. And honestly, you could watch the council at first go, kind of, "isn't this cute?" to really saying, "wow. They really understand, and they care." And it moved people . . . And so by the time they finished and it was time for the council to vote on the ordinance, I think we were referring to "those climate kids" at the time...and I think that force of that future generation and that level of concern and the support of councilors and others in the community, really, was a pivotal thing in making us pass that ordinance.

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[201] For example, viewers of American Idol might have heard the famously sarcastic judge, Simon Cowell, say something like the following to a contestant: "Aww, you thought you were talented enough to become a professional musician? How cute."*

* Please note that this is an example only, and not an actual quote from Cowell.

At least in this case, Mayor Piercy's statement suggests that the "climate kids" needed to push

through the assumptions of city council members before they were taken seriously. This barrier is

observable to viewers in a video of one youth presentation to the Eugene City Council. After the

statements of younger kids in particular, the giggles and "awww"s of adults can be heard in the

background.[202] As framing research suggests, the perceptions that adults have of children may

actually make it difficult for adults to hear the data that kids present at first, instead focusing on

the cuteness and novelty of small children playing at politics. It is this "wall of cuteness" that kids

must contend with—by doggedly showing up to meeting after meeting with sound, researched

arguments—before adults can transition into a different mindset in which youths are taken seri-

ously and respected as citizens with valid concerns and worthwhile ideas. The efforts of these

kids—in conjunction with advice from Mayor Piercy and Julia Olson—is more than an effort to

make change in a local community. It is also an effort to reframe children, by continually chal-

lenging how adults expect children to think and behave until they accept a new, more compe-

tent conception of (at least some) children.

    The initial stereotypes that city council members had of youth in this situation are similar

to those projected onto other subordinated groups who try to move beyond the limitations set

for them by society. As Wall writes, "women, the poor, and ethnic minorities, have had to fight

for their rights over history too. They have had to prove that they are equal public citizens" (Wall

2). For instance, both the press and the public tend to make statements about the appearance

or emotions of female politicians in a way that is less common in discussions of male

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[202] Please see the video titled "TRUST: The Climate Kids" at https://www.ourchildrenstrust.org/short-films (Our Chil-
dren's Trust "Short Films").

politicians.[203] Female politicians can be criticized for being either too masculine (thus defying

people's frames of "female"), or too feminine (thus defying people's frames of "politician").

When Hillary Clinton ran against Donald Trump in the 2016 presidential election, her pantsuits

and no-nonsense haircut were a frequent topic of conversation. Both her dress and mannerisms

were often called masculine, and her supposed lack of femininity was often criticized (see figs.

20-22 for related memes). On the other hand, she was also criticized for being too feminine.

Trump accused her of playing the "woman card" to get elected, as well as being too "unstable"

for the job (Rappeport; Zezima; Pascaline). When the media and others focus on a female pro-

fessional's appearance (describing her with adjectives like "pretty" or "unattractive," etc.) or fo-

cus on her gender or emotional state, they minimize her accomplishments and generally rein-

force set frames that make it more difficult for a subordinated group to leave the confines of

those social expectations in the future. Thus, members of subordinated groups must work harder

to be taken seriously in spheres dominated by other groups. They must strive to strike a balance

between two sets of expectations: to reflect social expectations of their subordinated group,

while also demonstrating the ability to blend in with the dominant group (or in this case, politi-

cians).

Unlike many subordinated groups, however, youth are rarely seen as a subordinated

group, thus rendering the injustice of their struggle invisible. Wall discusses this as well, noting

that, "children and child advocates face an especially daunting task. They have to overcome the

very foundation of modern rights as a sphere for the privileges of adulthood" (2). This may be in

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[203] In fact, I must admit that I did this myself at first, inadvertently using language that described the plaintiffs in this chapter as playful, "adorable," etc. In other words, without even noticing, I resorted to youth stereotypes in my own writing. This demonstrates how ingrained our cognitive frames are, and how difficult they are to change. Some say that this difficulty goes beyond our own desires to adopt a new perspective, since we are essentially immersed in particular culturally embedded frames and ideologies (Vendantum).

part because kids have not been the focus of an expansive movement for increased rights like

the women's suffrage movement or the black civil rights movement. Rather, our nation's children

exist within one of the few remaining groups to go unrecognized for their lack of power relative

to other dominant groups. This lack of recognition is not based on a lack of awareness; while

most people know that children lack power, their powerlessness is taken for granted as part of

the natural order.

Avery addressed the assumptions that adults make about the youth plaintiffs in a public

statement, following Judge Aiken's decision to allow their case to continue:

> I'm aware that there are people out there who are saying, 'Those kids don't know any-
> thing.' I would like to tell you what this eleven-year-old knows. I know that I love the
> Earth, and I know that it is being threatened by rising temperatures . . . I know that I
> have a constitutional right to a stable climate, and I know that one of the government's
> jobs is to make sure that the future planet will be hospitable for generations to come. I
> know that I can't vote, but I know that I have a voice. [Crowd cheers. Avery laughs.] I
> know that it is not my job, but I'll do my part to secure the right for a healthy environ-
> ment for those that follow me. Thank you.[204]

While there are acknowledgments of Avery's status as a child in this passage (her lack of voting

rights, her age, etc.), she also defies the assumptions that adults make about children as incom-

petent, powerless, and ignorant of their own rights. Avery demands to be taken seriously by

adults during this appearance. What's more, she doesn't seem to be afraid of flipping the script

and telling adults what to do on occasion. Another YouTube example focuses on Avery's presen-

tation for a crowd of adults at the Telluride Mountain Film Festival on May 27, 2017.[205] During

this presentation, Avery stood before a giant, projected picture of herself in front of a court-

house, hands on her hips (see fig. 29):

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[204] Please view the full video at the following web address: https://www.youtube.com/watch (Our Children's Trust "Av-
ery").

[205] Note that, at this presentation, lawyer Julia Olson of OCT merely introduced Avery; the majority of the time during
this presentation was Avery's to use, with Olson merely acting as a source of support.

I'm eleven and I can't vote. But I can make a difference in the courts, and I think that it's important that you stand up and show the government that we have a voice and we can change the world . . . What do you care about, and what are you willing to stand for? . . . The new normal requires that everyone stands up, speaks out, and does what they can to address this global crisis" (McRae).

Avery and Levi certainly aren't the only plaintiffs to struggle with being taken seriously. Many of the young plaintiffs have made public statements about their frustrations at being treated like ignorant children. For instance, plaintiff Aji Piper expressed frustration with adults' assumption that he's parroting information provided by adults or being manipulated into participation in some way. "I'm not regurgitating any of this information," he told CNN. "I'm not stupid. These facts are overwhelmingly in one direction" (Sutter). As the youngest plaintiffs, however, Avery and Levi face increased pressure to both behave in ways that are cute and entertaining, while also constantly proving that they aren't, in fact, incompetent, and thus, deserve to share in public climate change discourse alongside adults. Avery is careful to support typical frames of childhood by highlighting the ways that she is "a normal kid,"[206] while also challenging those frames, by saying that "this normal kid is also pissed...sorry, Grandma and Grandpa" (McRae). Here, Avery shows that "normal kids" have dimensions that extend beyond adults' typical frames of youth, frames that she knows her grandparents and other adults like them may prefer to ignore.

Both the images and words of these youths demonstrate that people—children included—are complex, with thoughts and actions that extend beyond the boxes that society wishes to place them in. By generalizing or attributing particular traits to entire groups of children, we tend to miss the complexities of individuals, and the potentially valuable messages stemming from those individuals (see figs. 23-30 for photos that highlight different aspects of Avery's per-

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[206] Using examples like her love of horses, playing outside, etc.

sonality). Indeed, as scholar Ruth Lister notes, our cultural practices related to participation do not reflect individual difference:

> While capacities evolve with age, in practice the actual ages at which a child acquires competencies vary according to her life experiences and social and cultural environment on the one hand, and the nature of the competencies and the situations in which they are required to be exercised on the other. (698)

Perhaps it is true that many adults display more "maturity" than kids, or possess more experience with climate change science, public policy, or government. But perhaps we should acknowledge that there could also be many kids who are more mature or knowledgeable or effective than some adults, or adults who are less mature or knowledgable about particular subjects than some kids. After all, our current president is sometimes criticized for a lack of understanding about climate science, as well as immature behavior (he has even been likened to a toddler throwing a tantrum or a fifth grade bully).[207] By both embracing frames of childhood and defying them, kids like Avery attempt to gain the simultaneous attention and respect of adults that is necessary for participation in the larger climate conversation. This, however, is a fine line to walk.

The Safeguarding of Childhood

When Avery and Levi are interviewed, they frequently share the spotlight with their parents, lawyers, or other adults. The parental quotations selected for such articles often focus on the decision to "let" the kids participate in the lawsuit, or how parents are safeguarding their kids' childhoods against the dangers of entering into a public, adult-dominated sphere. For in-

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[207] For examples, please see the following links from CNN, Politico, and Washington Post:
- www.cnn.com/2017 (Cillizza).
- www.politico.com/magazine (Shafer)
- www.washingtonpost.com/news (Drezner)

Please note that these examples do not reflect researcher sentiment, but are merely meant to demonstrate such role reversals.

stance, when Levi was interviewed by the Australian Broadcasting Corporation, one of two pho-

tos depicted Levi's mother Leigh-Ann,[208] who said that she has come under fire for allowing her

son to participate in the lawsuit:

> The case has seen Levi and his fellow young climate activists face some rather adult language on social media, but his mother Leanne [sic] Draheim said she was not worried.
> 'Some people are saying like, 'Why are you letting your kid get involved? What does he know? He doesn't know enough to get involved,' Ms Draheim said. 'But really he knows that he cares about the environment, he cares about being outside, and we've talked about how that's not going to happen in the future for his kids if things keep going the way things are going.' (Duffy)

Here, the journalist chose to juxtapose Leigh-Ann's quote with a statement about the exposure

to "adult language" that has resulted from participation in the case. This juxtaposition may be

read as a criticism of Leigh-Ann as a parent, since it presupposes that all exposure to "adult lan-

guage" is inherently bad for kids, and makes suggestions about parents who allow such expo-

sure to happen.

Another article in The Atlantic—titled, "The 11-Year-Old Suing Trump Over Climate

Change"—features Avery, though many of Avery's quotes in the article seem to highlight her

status as a preteen (dramatic statements like, "I'm going to die," "super-heartbroken," or "su-

per, super maddening" (O'Rourke). A substantial portion of the article also focuses on the ways

in which Avery's parents—who both work in environmental careers—try to "ensure that she sa-

vors her childhood as well." For instance, Avery is kept from viewing negative online comments

about the lawsuit, and O'Rourke highlights the ways that Avery is a typical middle-class child by

detailing her participation in music lessons, reading fantasy books, and attending school and

dance classes.

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[208] The other photo is of a giggling Levi, who is sprawled starfish-style on a sandy beach…a photo that seems to highlight his status as a child.

So why, in the midst of something as newsworthy as a national lawsuit against the US government and the fossil fuel industry, are journalists focusing on the ways that youth plaintiffs are childlike, or efforts to protect their childhoods? After all, the articles that focus on individual plaintiffs are few and far between. Perhaps this focus is an attempt to cater to the assumptions of adult readers, since many of the news articles that allow reader comments demonstrate that many readers are concerned about youth participation in such lawsuits. Alternatively, such a focus on adults may serve to maintain a balance of power between adults and children. As Lister writes, "Children's disqualification from adult citizenship rights is justified on grounds of their need for protection and their dependence on adults" (705). So long as children are perceived as innocent and vulnerable (rather than experienced and powerful), that balance of power is easier to justify and maintain.

Sneaking into Social Media:
How Kids Take Action in Restricted Online Spaces

In a world largely controlled by adults, the internet offers some level of control to kids. After all, once a child is textually and technologically literate, there is very little to bar kids with public or private web access from participation online. This is especially true in the era of web 2.0.[209] Using social media sites like Facebook, Twitter, and Instagram, kids can make plans, and share news, gossip, or all kinds of other visual and textual information. Using sites like YouTube, kids can upload self-made videos that introduce their creativity and ideas to the world. And al-

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[209] Web 2.0 refers to the "social web," or "the layering of social interaction and online content…includ[ing] instant messaging, blogs, social network sites, and video- and photo-sharing sites" (Ito 28; O'Reilly). Essentially, web 2.0 means the ability of anyone with access to the internet to not only tap into the shared body of creativity and information that exists in the online world, but also to contribute to it and discuss it with others.

though COPPA laws exist to protect [or exclude] kids[210] from the wild west of the online world,

such protections are somewhat laughable. For instance, individuals are only required to enter

date of birth as proof that they are old enough to start a YouTube account. Hence, any child with

internet access who can do simple math and is not morally opposed to breaking such a rule is

able to do so. Since users of social media aren't required to reveal their identities to the world

(through use of pseudonyms, etc.), it is possible for an articulate child to share his or her per-

spectives in ways that are more likely to be taken seriously. Thus, while adults can prevent youth

participation and ignore youth perspectives in the real world, web 2.0 is a means for children to

participate in the adult world in ways previously less accessible to them.

Unfortunately, it is often difficult for researchers to find or observe the web 2.0 activity of

kids, since minors can only create accounts by lying about age. However, there are other ways

that youths work around COPPA laws on social media. Many youths—including some of the mi-

nors involved in Juliana v. United States—have their messages posted by those who are of age.

For instance, although eleven-year-old Avery is not legally allowed to hold her own account on

YouTube, her public appearances and activist accomplishments are made accessible by news

outlets and nonprofit organizations such as Our Children's Trust and The Northwest Center for

Alternatives to Pesticides (NCAP). Furthermore, Avery and Levi have the help of their parents in

posting their video messages, as well. Avery's father has exactly two videos on his YouTube ac-

count, and both feature Avery's environmental presentations at a national conference. If her fa-

ther's account exists solely to display Avery's activism, then isn't it akin to Avery holding an ac-

count to display her activism? All of this is to say that, while much of adult society aims to restrict

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[210] Kids are defined by COPPA laws as those below the age of 13. According to the Federal Trade Commission's defini-
tion of COPPA laws, "COPPA imposes certain requirements on operators of websites or online services directed to chil-
dren under 13 years of age, and on operators of other websites or online services that have actual knowledge that they
are collecting personal information online from a child under 13 years of age" (www.ftc.gov/enforcement/rules).

youth participation in adult discussions and issues, social media demonstrates that some youths have adult advocates who believe in their capacity to participate and will help them to do so. Furthermore, the participation of these youths in social media demonstrates that the faith that some have in youth capacity for participation is not unfounded.

Another of the youth plaintiffs—sixteen-year-old Xiuhtezcatl Martinez (Xiu)—posted videos and Facebook updates about the activism of his own eleven-year-old brother (Itzcuauhtli),[211] since his brother was too young to have an account of his own. Itzcu's "activism" does not involve a local lemonade stand to save the polar bears. On December 12, 2014, one Facebook user described his solitary act of defiance against the government as such:

> My 11 year old neighbor, Itzcuauhtli, has been on a talking strike for over 40 days now until world leaders take action on climate change and today people worldwide are standing in solidarity with him by pledging to be silent. I believe his resolve and the work being done by the Earth Guardians and brother, Xiuhtezcatl Martinez, is extremely uplifting and inspiring. It gives me hope for the future in a time when it seems most of us are content to stand idly by as corporations and government destroy our planet for a profit. Today I will be silent too and take time to reflect on how I can be more impactful and conscious. (Bertolo 2014).

As this post demonstrates, not all adults view children who participate in activism through the veil of cuteness. Rather, by comparing the "uplifting and inspiring" acts of Itzcuauhtli and Xiuhtezcatl with "the rest of us," this poster displays a perception of equivalence between adult and child actors. This poster does not see the boys' actions as inspiring merely in comparison with other children, but in comparison with "us" in general.

Another wrote, "Moved by despair Itzcuauhtli didn't speak for 45 days so the world would hear him! His message of silence became a megaphone for thousands of people everywhere to unite for climate action!" (Ruiz). This message in particular points to the perspective

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[211] Pronounced "Eat-Squat-Lee" according to Itzcuauhtli's website, climatesilencenow.org.

that though youths speak their voices, they often aren't heard by controlling adults. Thus, Itzcu

decided to stop speaking in order to gain attention, and thus, a voice. Through his engagement

in this strike of silence, Itzcu gained the attention of those who were able to legally access the

mouthpiece of web 2.0. Through the support and partnerships with those individuals, he gained

substantial publicity, and even a sizable number of followers who were inspired to join him in his

strike of silence.

Through other organizations—like Earth Guardians—Itzcu was also able to send his mes-

sage out to thousands of like-minded youths and adults, and inspire others to join him in his

strike of silence. In this message, a smiling, yet silent Itzcu holds up signs before the camera:

"We are done waiting for world leaders to take action…because by 'world leaders,' I mean US…

and we have just begun!"[212] Here again, the first-person plural pronoun "us" is used to place

Itzcu on a level plane with other activists, both adults and children alike.

Itzcu's activism was not always supported by adult authority figures, and in fact, his

mother eventually pulled him out of school when his teachers and school faculty refused to allow

him to communicate using written language during his strike. However, the messages that he

wasn't legally allowed to post online inspired over 100,000 kids, teens, and adults to participate

in his silent strike. In one video posted by the Earth Guardians, Itzcu shows photos of groups

(mostly kids and teens) from around the world, wearing green wristbands or green tape over

their mouths and displaying messages like, "when children are silent, the world will listen," or

"We stand in solidarity with Itzcuauhtli in SILENCE. We must take climate action now!" One im-

age shows four girls standing before what looks like an oil refinery, displaying both green-taped

mouths and powerful muscles (see figs. 31-35 for photos of youth support). These photos

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[212] View the complete video at the following web address: www.youtube.com/watch (Earth Guardians "Itzcuauhtli").

demonstrate that youth activists like Itzcu, Xiu, Avery, and Levi are not anomalies, and web 2.0

has allowed them to form a supportive online community of like-minded activists, young and

old.

The question is that—if intelligent, articulate, persuasive youth actors have powerful

messages that they want to share with the world—messages that adults perhaps aren't bothering

to make—should they have to find a way around the laws that prevent them from such participa-

tion? On December 10 of 2014, while HuffPost was notifying the adult world about "The 14

Greatest Cat Videos of 2014," an eleven-year-old was encouraging youths worldwide to take

action on climate change. If one child can inspire the world to use social media to take action

while a news media outlet inspires the world to use social media for expanded entertainment, is

there any reason to deny that child a place in the world wide web of communication? The youths

of the world are beginning to make their voices heard, whether the world wants to hear those

voices or not. As Itzcu wrote on silenceintoaction.org, "I hope our silence amplifies the voices of

youth everywhere calling for climate action now!"

CASE STUDY 2: Xiuhtezcatl Martinez

Crossing Borders

Itzcu was not the first Martinez brother to enter the world of public activism. In fact,

Itzcu's older brother Xiuhtezcatl began his activist career at a very young age. Adults who view

the video of a six-year-old Xiu[213] giving a speech at a national environmental event would most

likely describe him as either precocious or brainwashed, depending on the viewer's mental

frames. Xiu's argument is generally concise, well-reasoned, and energizing, like many speeches

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[213] Pronounced Shoe-tez-cott

delivered at social justice rallies. It is also peppered with the kinds of cuteness that adults expect when viewing a speech delivered by a six-year-old. For instance, six-year-old Xiu laments the naïveté of his five-year-old self (who hoped to fight corporate giants head-on). He then pointed to his wise realization at the ripe old age of six that citizens could take power away from corporations by refusing to buy their products.[214] Such a statement is charming to a particular adult audience, who would unlikely believe that a six-year-old could be much wiser than a five-year-old or compete with the general wiseness of adults. To a child who only has six years of life experience, however, one year is jam-packed with realizations that (depending on the child) may in fact give them a sort of wisdom that some adults have never acquired.

Ten years later, I watched as Xiuhtezcatl— a sixteen-year-old plaintiff in the youth climate change lawsuit—prepared to deliver a speech at the Youth Speak-Out on the Supreme Court steps (see appendix O for a complete transcript). With a decade of public speaking under his belt, Xiu was adept at adapting to the expectations of an audience. Like other subordinated groups, youth struggle to be taken seriously in roles typically reserved for those in power.[215] When speaking to adults, he seems to aim for a balance between trying to fit in with adults (by wearing a suit, delivering a speech in a formal style, providing a well-supported argument, and even using the first-person inclusive pronoun "we" to suggest that he is one of the adults) and acknowledging his status as a kid (by highlighting the ways that kids like him are left vulnerable or barred from the climate conversation).

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[214] Please view this video at the following web address: www.youtube.com/watch (Earth Guardians "Xiuhtezcatl").

[215] For instance, at the start of the women's liberation movement, women who expressed frustration with housework and a desire to acquire a job were often belittled and treated for a medical condition called hysteria. Rather than taking women's concerns seriously, it was assumed that there must be something wrong with those who were dissatisfied with their assigned roles.

Xiu's speech in front of the Supreme Court steps is an interesting example of this balance. When Xiu stepped up to the podium in front of the Supreme Court, he was prepared to communicate with an audience of adults. He wore an all-black three-piece suit to the event, paired with black sneakers (a befitting look for someone whose speech and mannerisms only hinted at his age in public appearances). Thirteen other youth plaintiffs were lined up behind him in various states of attentiveness as Xiu advanced an articulate argument about adults' responsibilities to the younger generation, adults' neglect of youth opinions, and the need for youth to lead the current movement to save the planet:

> For the last several decades, we have been neglecting the fact that this is the only planet that we have, and that the main stakeholders in this issue are the younger generation ("yes!"), that not only are the youth going to be inheriting every problem in the world today, after our politicians are long gone, but that our voices have been neglected from the conversation . . .

In this passage, Xiu uses the first-person plural pronoun "we" to refer to what people have been doing to the planet for "the last several decades," though—since he has not lived for much longer than a decade-and-a-half—his use of "we" merely avoids alienating the adult audience. Furthermore, he starts out by referring to "the youth" as if they are other, or a group to which he does not belong.[216] Halfway through this passage, however, he begins using the first-person inclusive pronoun "our" to refer to the youth voices that are left out of climate change discourse. This demonstrates the challenge and conflict of trying to blend in with an adult audience despite a personal connection with youth. It isn't entirely clear whether Xiu's shifting pronouns are intentional, based on inner turmoil, or perhaps just a misunderstanding about pronoun use. However, this constant shifting may have a persuasive impact; since an audience may be uncertain about which group Xiu is referencing through his pronouns, he leaves it open to

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[216] This is something that Xiu does throughout the speech. For instance, though he is too young to vote, he states that "for us, every decision that we make is a vote for or against our future."

audience members to interpret his message in different ways (focused perhaps on either the needs and rights of youth or adults). This shifting may also create unity, by suggesting it does not matter who he references. Rather, all people—youth and adults alike—are in the fight together.

Xiu is also somewhat ambiguous in his framing of youth. In some situations, he embraces traditional adult frames of youth as vulnerable and in need, for instance by first calling on adults to fulfill their responsibility to stand up for the rights of the oppressed, and then saying, "It's about protecting the future of these children, of these youth, for all your children, for every young person in this country." At other times, Xiu reframes youth as a powerful force to be reckoned with, stating that, "when we can all vote, we will be the biggest young voting generation that there has been. We're going to elect politicians that represent our voices and our futures, but for now, we are not going to wait until someone in office is representing our voices."

This speech demonstrates the difficulty that a youth activist faces in meeting the needs of vastly different audiences, and trying to appeal to a group in power (adults), while also maintaining allegiance to one's own group (youth). Some sort of balance is necessary if Xiu's words are to have a chance of acceptance by most adult viewers. If he fails to dress appropriately, speak eloquently, or provide a well-supported argument, adult viewers are likely to dismiss him as "just a kid" with nothing important to say on the topic, and thus, he will not be taken seriously. If, on the other hand, he fails to demonstrate speech and mannerisms expected of teens on occasion, many could assume that his speeches are written by adults. Furthermore, if he fails to come off as "kid-like," then the advantageous novelty of the court case—kids suing the government—is minimized.

Some of Xiu's other speeches for adults demonstrate his tendency to challenge the expected power dynamics between generations. Even in his speech as a young child, Xiu criticizes the parenting style of adults (claiming that they aren't teaching their children to love and respect nature), and challenges them to alter their parenting style.[217] As he grows older, his speeches become more confrontational and scolding in tone, and he turns to suggestions of adult passivity in contrast with youth proactiveness. For instance, after highlighting the many proactive steps taken by his youth organization (the Earth Guardians) to "find the solutions to the issues that will be left to my generation," Xiu turns to the failures of the UN to do the same:

> We are approaching twenty-one years of United Nations climate talks, and in the last twenty years of negotiations, almost no agreements have been made on a binding climate recovery plan. Our window of opportunity to take action is shrinking as the problem exponentially increases. (Martinez "UN")

By juxtaposing the many accomplishments of youth with the UN's stagnant approach to climate action, Xiu seems to flip the typical interaction between lecturing adult and errant youth (which is especially brazen before a powerful group of adults like the UN). It is easy to see how many frustrated youth activists might appreciate the scolding tone that Xiu occasionally takes in his UN speech. The current generation of adults has made a great mess of things (and by the way that many UN members avoid Xiu's gaze, it seems that at least some of the members are conscious of that fact). If scientific consensus is to be believed, adults have not only caused the problem of climate change, but they have failed to devise or execute creative solutions to solve it. Rather, they merely continue talking about climate change while youths begin to take action. In this sense, Xiu suggests that kids have something to teach adults, and it is time that they start listening.

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[217] Here, Xiu demonstrates the deep respect for nature that he says is a part of his indigenous culture, and is a part of the upbringing that children in his culture receive.

> What a lot of people fail to see, or simply ignore, is that climate change isn't an issue that is far off in the future…young people are standing up all over the planet, because we see that climate change is a human rights issue…Every generation leaves a mark on this planet…we are at a tipping point right now, where we will either be remembered as the generation that destroyed the planet, as a generation that put profits before future, or as a generation united to address the greatest issue of our time, by changing our relationship with the earth. (Martinez "UN")

In this passage, Xiu suggests that young people understand things in a way that adults either "fail to see, or simply ignore." By using the first-person inclusive plural pronoun "we" when addressing a room full of adults, Xiu shares responsibility with the older generation, thus softening the blow of blaming the previous generation for climate destruction. Additionally, the use of "we" may also suggest that—even if the climate crisis was largely caused by adults—the members of every generation must pull together to devise solutions (which means that adult policymakers must place any sense of generational superiority to the side). This point is emphasized in Xiu's concluding line, in which he states, "I don't want you to stand up for us, I want you to stand up with us. Because together we can change this world." Here, Xiu highlights the desire that adults join in a true partnership with youth, in which the perspectives of youth are respected and given equal weight. After all, his speech suggests, adults have not upheld their role as responsible stewards for the earth or for the next generation, so why should youth be restricted to the passive role that adults imagine for them?

One of the strongest lines in Xiu's speech is metaphorical in nature with double meanings: "It's time to look to the skies, for the solutions that we need. Because the future of energy is no longer down a hole" (Martinez "UN"). First there is the literal meaning if this statement, that renewable energy (solar and wind) are based in the sky, while fossil fuels are in the ground. Thus, he suggests that we need to move toward renewables and away from fossil fuels. Metaphorically, the sky also has connections with dreams, flight, and boundless possibility, while

"digging a hole" is symbolic of both death (as in, burial ground) and self-destruction (since to

"dig a hole" means to verbally bury oneself in a losing argument). There is also the metaphorical

connection between "up" being good and "down" being bad (Lakoff "Metaphors" 16). Finally,

the reference to the skies seems to connect with youth and the future. The hole in the ground

seems connected to the aging adult population, to dinosaurs, to the archaic ways of the past.

Hip-Hop and Hashtags: Kids Engaging Kids

Although Xiu clearly sees the value in communicating and forming partnerships with

adults, much of his communication efforts target kids and teens. One of the primary places that

Xiu reaches out to other young people is through social media. In fact, Xiu credits social media

with allowing his youth division of The Earth Guardians to spread to over one hundred chapters

worldwide. On Facebook, he has over 36,000 followers, and a great number of them are

youths.[218] His language fluctuates between the more formal evocation of his court-related

speeches, career-building promotion for his book and album, and the casual "I'm just a normal

kid" style that he uses elsewhere. In fact, his posts would almost seem to be written by different

people, if it weren't for the occasional characteristic word or phrase. He writes posts like, "We're

fighting a winning battle y'all! 💗" (August 3, 2017) and "So stoked to be playing here with my

EG [Earth Guardians] crew" (July 20, 2017, in reference to one of his hip-hop performances). He

also joins a friend in one video post challenging two of their friends to "Stop sucking…because

every day in the US, this US, five-hundred million plastic straws are thrown away, many of which

are going into our oceans…Make a video, committing to stop sucking, and challenge someone

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[218] This information is based on the examination of Xiu's list of followers and a brief skimming of the associated profiles/profile pictures.

else, so that we can protect our oceans…" (August 17, 2017).[219] Even others' tweets about Xiu

from the same event seem to refer to different people. For example, on March 10, 2017, Adam

Jamieson writes, "An eloquent 16-year-old indigenous man addressing the crowd to open the

rally #NativeNationsRise" (@senorjamieson). On the same day, Collin Rees writes "The incredible

@XiuhtezcatlM of @earthguardianz spitting rhymes at #NativeNationsRise" (@collinrees). These

depictions demonstrate once more that two-dimensional perspectives of youth do not ade-

quately capture the complexities of any individual, even those who are seen as adults or humans

"in training."

Despite the ease of spreading messages to other youths on social media, Xiu's commu-

nication style with youths is most visible in person. The People's Climate March Youth Convening

in Washington D.C. is one strong example. The day after the Youth Speak-Out on the Supreme

Court steps (Friday, April 28), a sizable crowd of teens packed themselves into the sanctuary of a

Presbyterian church on a D.C. side-street. The Youth Convening—which was also promoted by

Our Children's Trust—was a sort of meeting-of-the minds for youth, in which teen activists lis-

tened to speeches by other teen activists, and then attended social justice workshops about ef-

fective messaging and the like. The event was promoted online via email and social media, and

the Facebook invite declared that "Young people are gathering on the day before PCM [Peo-

ple's Climate March] to talk about the role of students and youths in this political moment, build

relationships with other climate justice leaders from across the country and strategize for what

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[219] These sorts of posts could be compared with others that take on a more formal tone. For instance, Xiu wrote the following string of tweets on August 9, 2017: "Youth are inheriting instability & destruction our climate crisis is creating on our planet, in our communities & with our economy" and "Everything you do has an impact on the world. Strive to make that ripple a positive one, and never lose hope" (@XiuhtezcatlM). Aside from the occasional typo, this sort of well-composed, informed statement could easily be mistaken as the words of an adult activist.

comes next . . . Young people have a critical role to play in this political moment, and we are

ready to show up strong to fight for our futures" (Martinez).

Unlike the Youth Speak-Out, the target audience for the Youth Convening were actually

youths, who packed the church pews and greatly outnumbered their chaperones and members

of the press. Many of these teens had traveled cross country on buses with their environmental

youth groups.[220] Just before the event began, the energy in the sanctuary was palpable, with

excited voices buzzing in every pew. The program started with a youth-led chant of "Resist!

Build! Rise!" As the chant died down, the first youth activist speaker was introduced. Following

thunderous applause and enthusiastic cheering, Xiuhtezcatl climbed the pulpit in an entirely dif-

ferent uniform than he'd worn the morning before. Though he still wore his characteristic head-

to-toe black, the three-piece suit had vanished, and instead he donned a black t-shirt, black

jeans, and those same black sneakers from the day before. His long hair was pulled back into a

bun, and his appearance set a tone of informality.

His appearance wasn't the only thing that had changed since the morning before. His

speech and mannerisms had also changed. He began by asking, "What's up everybody? How

you guys feelin' today?" When the crowd's cheers lacked the required enthusiasm, Xiu respond-

ed by teasing, "That was weak!" He then introduced himself with some of the standard details

that are requested at more formal appearances—like his name and age—and some not so stan-

dard details—like his love of waffles. This mix of standard details and more casual quips carried

throughout his presentation. The language of his formal speech from the day before was soft-

ened somewhat, and the content shifted away from lecturing adults about their responsibilities

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[220] Though school was still in session and the Climate March wasn't until the following day (a Saturday), these youths arrived a day early in order to attend social justice workshops and gain inspiration from the speeches of other youth ac- tivists. The event seemed less formal than the Speak-Out, and was certainly less inclusive of the general public (since all attendees were required to register beforehand.

to youth. Instead, he spoke to the youths about the power that they possess, and how important

it is for youths to participate in the climate change movement:

> I'm incredibly inspired by every single member of this generation and the members of this audience that is going to be a critical piece in developing the world we will pass on to the next generation. Each and every one of us has an equal responsibility to be engaged in this stuff. You are just as important of a person and leader in this movement as I am. And that mentality has gotten me through this, because I started talking about this when I was like, small, I was like six, um, and I got up onto the stage, and was talking to people about climate change and about how we have to raise our kids differently, uh, teach people to live more in balance with our earth, and…it felt lonely…partially because all of the events I went to were with like, old white folks in their fifties and sixties… and I got nothin' but love for my old white folks, but um…[laughter] for me it was like, my . . . my my people weren't there, 'cause you know, I mean, I was like a little kid, you know, and I wanted to hang out with my friends, too, and I still do. So when I walk into an audience in a room and I see diversity in the movement, I see strength in the movement. When I see different ideas, different colors of different people with different religious beliefs or spiritual beliefs or backgrounds, of different ages that can come together into a space like this, I see strength within in our movement, strength within the resistance. Because I think that the most powerful times in history have been when all people could come together. (Martinez "Convening")

This passage demonstrates a different style and mood from the speech at either the UN

or on the Supreme Court Steps. While Xiu called for a cross-generational partnership at both

events addressing adults, he did not express a true sense of unity with those listeners, or an ad-

miration for them. At those events, he maintained formal language, and his words took on a

scolding tone. Within his speech to youth, however, he incorporates casual language that is

common with youth (like "hang out") and humor with a phrase like, "nothin' but love for my

white folks."

When speaking to youth, Xiu also seems more relaxed and jovial—perhaps less lonely—

while maintaining a consistent message. Following these statements, however, Xiu broke away

from his speech entirely, shifting instead into the realm of hip-hop. As he explained, "Art and

music have always been a powerful tool to create and justify movements . . . Hip-hop was born

at a place when young people were disempowered and didn't have a voice . . . but these young

people got together to make music." He then stated that "the power to change the world is in

each of our hands . . . [long pause] . . . I'm gonna' say it again so that you guys, like, really get it.

The power to change the world is in each…of our…hands." Xiu played off of his last line as a

means of diving into his hip-hop routine:

> The power to change the world is in each of our hands /
> Not the president or the government they still don't understand /
> because we fight for our people, for this planet, we stand /
> as the corporations and industries walk hand in hand /
> we will walk—we will fight for our rights against the tar sands. /
> We will take back our streets. This is our land. /
> This is the only home we got, we must protect it not neglect it. /
> We say no to these pipelines, we get the people to reject it. /
> Cause we're takin' back the power. /
> We're taking back the power. We bring it to the people. /
> We stand for justice, fight for freedom till we're treated equal. /
> This is our time, that we build a legacy and leave it /
> You can't say my name, but you know it's me when you see it. /
> (Martinez "Convening")

Here, Xiu uses hip-hop to emphasize his common message, that—while adults like the president,

government officials, and industry leaders may not understand the climate issue—youth do un-

derstand, and they have the power to "take back our streets." Within this piece, Xiu also ties

together the struggle of both youth and minorities for equal treatment, and again injects a bit of

unexpected humor at the end (which seems to be entirely absent from his speeches to adults).

All of these strategies seem to be designed to engage youth in a different way, and those

strategies certainly seemed to do their job. His performance got the entire room of teens clap-

ping and cheering in a way that is hard to imagine based on most of the educational media or

fiction in previous chapters.

　Xiu's hip-hop performance shows a side of his activism that is usually reserved for

younger audiences. On a few different occasions, Xiu has expressed the view that music, art, and

creativity are a way that youth can inspire others to take action. For instance, Xiu wrote the fol-

lowing in one tweet: "A movement as diverse as the struggle for #climatejustice needs music to

bring the world together" (@XiuhtezcatlM).[221]

Xiu's presentation of self was also different when speaking to media outlets that catered

specifically to young people. For instance, in his interview with MTV following the Youth Conven-

ing, he chose to focus far more on his status as a "normal kid" than anything else. He makes a

few attempts to connect to other youths in this interview, first by identifying with the commonly-

felt annoyance of school, saying that "I'm kind of a sophomore in high school when I have time

for that." He then clarifies that he does not want his activism to cause others to see him as an

unusual kind of kid:

> I'm not some like, kid that wants to dedicate the rest of his life to like, activism, and all I
> do is like, talk to politicians and interview with people. Like, I'm a regular kid, like, I'm not
> going to the climate march because I'm going to Prom with my girlfriend. You know? So,
> it's like…that is what keeps me going, knowing that I am not the only regular teenage kid
> out there trying to fight to make a difference so that kids in the future will never have to
> struggle the way that we have. (Martinez "MTV News")

In saying this, Xiu suggests that youth viewers are also important in making change. He hopes to

make other kids believe that he isn't special, that he is just like them, and thus, they have just as

much ability to stand up and participate in the movement as he does. In this way, he seems to

be trying to counteract what youths are made to believe on a regular basis—that making a dif-

ference is something that you do as an adult, after years of learning and practicing and planning.

And although the language, tone, and format are all different in his speeches to youth, this dif-

ference in message may be the most important shift in his messages between adult and youth

audiences. While he scolds adults for letting young people down, he lifts youths up by counter-

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[221] Similarly, during his UN speech, Xiu stated that "Earth Guardian crews are starting up all over the planet, and youth are using their passions to address some of the greatest issues of our time" (Martinez "UN").

acting the typical frames of youths as powerless victims, and helping them to feel more like

leaders instead.

Challenging Frames of [Minority] Teens

Within this project, much of the discussion about adult framing of youth has focused on

younger children. This is because adults' cognitive frames of younger children tend to be better

at evoking adults' sense of responsibility, protection, and nurturance (Stephens 58). Frames of

teenagers, on the other hand, tend to include concepts like rebelliousness, selfishness, hedo-

nism, laziness, and even pathology (Gilliam). These frames are perpetuated in part by news cov-

erage of teenagers, which tends to be highly negative. "The three most frequently reported top-

ics of youth news on the local stations were crime victimization, accidents involving young peo-

ple, and violent juvenile crime, accounting for nearly half (46%) of all coverage of youth" (Gilliam

and Bales 2). Framing of teenagers within a racial minority are even more negative, since minori-

ty teens are far more likely to be portrayed as pathological or criminal (Gilliam and Bales 5).

As a Native American teenager, Xiuhtezcatl Martinez (plaintiff in Juliana v. US and big

brother to Itzcu), challenges frames of both teens and racial minorities in a number of ways. In

fact, his very participation in social action efforts is an act of defiance against national representa-

tions of minority teens. His dedication to climate change activism stretches far beyond the efforts

of most adults who self-identify as deeply environmentally-conscious, and the high visibility of

the current lawsuit could be a powerful tool for reframing youth, since, as Gilliam and Bales

claim, media representations of teens can have a great impact on public perceptions:

> The ways news is framed—through visuals, symbols, inference, and language—can trig-
> ger pictures of self-absorbed, potentially violent, amoral teenagers or inexperienced
> junior adults experimenting with identity in order to assume their role in the community.
> That act of framing, in turn, can predispose voters to prioritize the allocation of public

resources in different ways…In short, the ways youth issues are framed for public consideration has severe consequences for youth policy advocates. (3)

In fact, studies show that adults believe that teens have changed over the years, and "…only 16% of Americans say that 'young people under the age of 30 share most of their moral and ethical values" (Bostrom). Thus, the current lawsuit—and the words and actions of the youth plaintiffs involved—have the potential to impact adults' frames of teens generally.[222]

As a sixteen-year-old, Xiu regularly challenges perceptions of teens as civically disengaged, hedonistic, and unmotivated (though perhaps he does little to combat perceptions of teen rebelliousness). In June of 2015, Xiu addressed the United Nations—an honor that few adults will achieve (see the full transcript of this speech in appendix P). During his UN speech, Xiu highlights the unique ways that youth around the globe are contributing to the climate movement, through participation in marches and student organizations, using their passions and creativity to inspire others, and generally "planting seeds of solutions that can change the world." He also identifies some of the ways that teens have directly impacted change in society, stating for instance, that "more than 220 institutions have divested from fossil fuels with the help of student-led movements." Through these statements, Xiu pushes back against the framing of teens as lazy, selfish, and disengaged. If youths are able to accomplish such things when so many adults (even those who claim to be "green") frequently fail to make it to the recycling bin, then how can teens be universally declared the lazy, disengaged group? Further, as Xiu says on

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[222] Xiu also challenges the framing of youths as less competent than adults. While studies show that many American adults have misconceptions about climate change—including the common belief that climate change involves a hole in the ozone layer (Frameworks Institute)—Xiuhtezcatl and his fellow plaintiffs consistently demonstrate a clear understanding of the issue. This understanding has been demonstrated by Xiu both as a younger child and as a teenager. For instance, Xiu was featured in an Our Children's Trust video on climate change when he was involved in a lawsuit against Colorado. In this video, he highlights some of the many ways that climate change affects Coloradans, including the increase in destructive pine beetles (which corresponds with an average increase in temperature), and how the beetles' destruction of pine trees leads to increased wildfires that bring about the loss of animal populations, homes, communities, and even the loss of human life. See the video at www.youtube.com/watch (Our Children's Trust "Colorado")

Twitter, "Indigenous people are at the forefront of our climate & environmental crisis" because

"Indigenous peoples will be the first to be affected by the promotion of extraction and dissolv-

ing of regulations" (@XiuhtezcatlM, August 9, 2017).[223] Xiu's indigenous identity is inextricably

linked with his teen identity, and in his continual efforts to reframe one group, he also helps to

reframe the other. If a group—whether teens or minorities—is continually forced to stand up for

basic rights that so many others have, how can they fit the stereotypes that are so frequently ap-

plied to them?

On top of the struggle to be taken seriously by the public is the struggle for subordinat-

ed groups to overcome their own mental barriers in stepping into the realms of dominant

groups. This inner struggle is deemed stereotype threat. Members of subordinated groups

commonly doubt their abilities or hold back due to the fear of "being at risk of confirming, as a

self-characteristic, a negative stereotype about one's social group" (Steele and Aronson). For

example, Steele and Aronson conducted studies showing that Black college freshman and

sophomores yielded lower scores on standardized tests when race was emphasized, since that

emphasis may be a reminder of the stereotype that Black students are not expected to succeed.

Similarly, when women were subtly reminded that females aren't expected to possess a strong

understanding of math, they did more poorly on math tests.

Youths are frequently perceived as less competent and capable than, and fears of prov-

ing those stereotypes right may keep some youths from speaking out about serious social issues.

Others, like Xiu, seem to embrace the role of teen social activist, adeptly straddling a range of

social spheres. While Xiu does make connections between himself and other kids in his more

formal, adult-targeted speeches, his youth identity becomes far more pronounced when he is

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[223] Here, Xiu alludes to environmental racism.

speaking to other youths. In situations in which the audience is primarily young people—at events like the Youth Convening, or in MTV interviews, for example—he dresses far more casually, increases his informal speech patterns (using words like "gonna" instead of "going to," for example), and delivers his message with appeals to his expectations of what teens will respond to. When speaking to youths, he also verbalizes his perceived status as a "normal" teenager, perhaps in order to suggest that any kid is capable of participating and affecting change as he does. In this way, he challenges frames of children as incompetent, "cute," and incapable.

Using the Users

When we picture a dominant adult group using a subordinate child group to achieve an agenda, the resulting image might be one of a predator-prey interaction. For many, it is difficult to imagine a truly symbiotic relationship between the adult activists, lawyers, and organizations and the children they represent. Beyond acknowledging the possibility that youths may have readily entered such a partnership based on their own researched concerns, there is also the possibility that such a relationship is mutually beneficial. According to children's rights lawyer Barbara Bennett Woodhouse, "The world is not composed of independent adults and dependent children. Rather, all persons, adult and child, are interdependent. They act and speak for themselves but with the support of diverse networks of social relationship" (Wall 36). "...both adults and children deserve both 'needs-based rights' based on their dependency on others to provide them with support and "capacity-based rights" based on their ability to express their own agency and voice" (Wall 36; Bennett Woodhouse 35). As suggested by Bennett Woodhouse and others, humans generally must depend upon one another to support the rights of all (Bennett Woodhouse 35; Cockburn; Jans).

Xiuhtezcatl seems to embrace partnerships with adults wholeheartedly, and he exhibits the mindset that youths and adults are, in fact, equal partners in the quest to save the planet. As he stated in his United Nations speech, "I don't want you to stand up for us, I want you to stand up with us. Because together we can change this world" (Martinez "UN"). Throughout his speeches, he seems to take for granted that youths have an equal role to play in our planet's salvation, and he certainly suggests that adults—the makers of the mess—have the responsibility to help uphold the right of young people for a continued existence on Earth.

Even beyond basic rights, Xiuhtezcatl's work with Our Children's Trust and The Earth Guardians supports the concept of mutually beneficial partnerships between adults and youths on two levels. First, Xiu has adeptly used his visibility as a child activist to propel his career. There are many activists in the world, fighting for a range of different causes. But activism involves fighting against higher powers, and working to bring about significant social change. Such activities fly in the face of our basic assumptions about youth; they are not protectors, but in need of protection. Thus, Xiu's status as an activist—especially when such a role began at age six—is novel, and likely gains him more attention than he would receive as an adult activist. Instead of allowing himself to be used by the media, Xiu has used his visibility to his own advantage in establishing a career before most his age have even graduated from high school. Xiu's new book, We Rise, can be pre-ordered through most retailers. His new hip-hop album, Break Free, was crowd funded on Kickstarter, bringing in more than $20,000 in donations from supporters around the world.

The concept of stereotype threat has already been discussed, but another related concept, stereotype tax is also relevant here. "Stereotype tax is when a negative stereotype that others have about you works to your advantage" (Vendantam). In order to cash in on stereotype

tax, members of subordinated groups take advantage of people's tendency to underestimate them, or automatically ascribe specific negative attributes to them. These individuals are able to outwit the members of a dominant group by defying their expectations. So for instance, 2004 World Series of Poker winner, Annie Duke, was better able to get away with bluffing when she had a good hand because many of her all-male opponents assumed that women were too emotional to engage in bluffing behavior (Vendantam). Similarly, youths like Xiu might be able to capitalize on the awe and wonderment that adults display when youths prove to be powerful, eloquent, and competent rather than weak, inarticulate, and ignorant as adults expect. Though Xiu has not spoken out about stereotype threat or tax specifically, many of his speeches contain statements declaring his position on youth participation. For instance, during his speech on the Supreme Court steps in March, 2017, Xiu states that, "...not only are the youth going to be inheriting every problem in the world today, after our politicians are long gone, but...our voices have been neglected from the conversation. We have not been included [in discussions] that are so important...our politicians are no longer representing our voices" (Martinez "Speak-Out," see appendix O).

Xiu is also able to use his visibility as a plaintiff in the national court case in another way. While much of his participation in the official court case involves speaking and appealing to adults—lawyers, judges, the press—his personal communication tends to target youth audiences (mostly via social media, but also on through other forms of media primarily consumed by youths). As discussed in the following section, Xiu's primary objective in personal communication seems to be the empowerment and recruitment of other youths, who may have been raised to believe that their actions cannot have real impact.

Of course, there is no information available to prove whether Xiu's words are his own, and in some of the videos from his younger years as a climate activist, he even admits some lack of understanding. His learning process as a young climate change activist has been captured on film. In his speech as a six-year-old, Xiu pointed to his ignorance and naïveté as a five-year-old. Then, as he stated in his OCT video as an eleven-year-old,

> I first started getting involved with climate change when I was around 6 years old. I was young, so I didn't understand everything, but I could tell that something wasn't right with our Earth. And then I started asking my mom about it. She's always really been there for me whenever…I don't understand something, whenever I'm confused. (Martinez "Colorado")

It is easy to imagine that—based on inexperience, lack of information, and trust in a parent—a six-year-old's environmental education might be based primarily on the beliefs of his or her guardians and mentors. Just as we saw some conservative parents suggest that they would need to teach their kids the truth about the climate change hoax themselves (see chapter 2), environmentally-centered parents are also likely to teach their own perspective of the truth to their children (Reilly). Of course, humans can be educated with false information, and—as many commenters demonstrate following stories about this lawsuit—when people feel that education is delivered by extremists, that education is often deemed "brainwashing" (Nikolewski). Still, Xiu's extensive presence in a range of public spheres demonstrates a style that is uniquely his own, poetic, strong, and flexible. It is difficult to argue that either the child or the teen featured in so many activist videos is incompetent or unmotivated, and it would be impossible to argue that he is incapable of participating in climate change action efforts. In this way, Xiu has worked to reframe children and teens as competent, strong, and capable.

CASE STUDY 3: Is it Socially Acceptable for Adults to Fight with Kids?
The White House, the Fossil Fuel Industry, and the Court System

When I began researching this case, I expected finally to see the "kid gloves" come off in how adults chose to discuss children. I expected to see press releases from fossil fuel companies that questioned the competence of the young plaintiffs. I almost assumed that President Trump and his lightning-fast thumbs would have tweeted in retaliation to the suit, perhaps suggesting that the kids involved were either brainwashed or stupid.

Instead, I found nothing. Not a peep from a single defendant.

Entirely sure that I was missing something, I contacted Our Children's Trust, since they not only filed the lawsuit, but have been posting extensive records of the court proceedings (as well as press releases and news coverage) on their website (ourchildrenstrust.org). Within twenty-four hours, OCT responded to my question about any public statements from the defendants, stating that "the US government defendants have shown remarkable restraint in not commenting on our case" (Morrison). One of the two statements that OCT was aware of was made by Gina McCarthy, who was head of the EPA during the Obama administration. In an interview with CNN in December of 2016, McCarthy suggested that the Obama administration settle out of court before Trump took office, as OCT and the youth plaintiffs wished. However, she said, "Their voices need to be heard…it's about their future" (Sutter).

There are no press releases from the White House on the subject. No quotes from defendants included in any news coverage of the case. And certainly no social media posts. The positions of any of the defendants involved can only be gleaned from the vaguest of statements in court documents, though very little of these court documents make reference to the status of the plaintiffs as children and teenagers. Rather, when the defense references previous cases in support of their motion to dismiss the lawsuit, it is mostly unclear whether the plaintiffs in previous cases were children or adults. What does it mean that none of the defendants involved—

whether it be the Obama or Trump administrations, or many of the fossil fuel corporations who petitioned to join the suit—have released any statements about the case beyond the general positions found in court documents?

There could be several reasons for the silence from the defendants, especially where the age of the plaintiffs is concerned. First, it could be a sign of how sacred children are within our society. Perhaps, businessmen and politicians alike know that it is a losing battle to publicly attack children for any reason.[224] Regardless of political party, making negative statements about children is unlikely to do much for one's success in business or politics. Another possibility is that the youths and their case are not mentioned by the defendants because neither they nor their case are being taken seriously by the defendants, and thus, they are not worth mentioning. A third possibility is that the kids involved in the case are not perceived by the defense as the actual target in the case (i.e., it is assumed that the adults are really the ones bringing the suit, and thus, it is the adults who must be dealt with). A fourth and final possibility is that the status of the plaintiffs as minors is not mentioned in the court proceedings because the children are being respected by the defense as citizens in their own right, and thus, their age is seen as irrelevant and not worth discussing. As long as the defendants remain silent on the issue, however, any guesses about their stance are purely speculative.

Silent [In]Difference: [Lack of] Perspectives from Shifting White House Administrations

Some would say that Presidents Barack Obama and Donald Trump have very little in common, including their positions on climate change. In the eight years of his presidency, Obama wrote 169 Twitter posts specifically focusing on the consequences of climate change and

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[224] One obvious exception to this is when children are being adultified, for instance when teenagers commit acts of violence.

pushing for climate change action in the form of emissions policies and green energy jobs.

Obama's tweets about climate change, which were usually made from his private account

(@BarackObama), typically fell into a few—sometimes overlapping—categories, which happen to

correspond with the four frame types:

1. Problem Identification: Identifying the problem or consequences of climate change:
   - "Ninety-seven percent of scientists agree: #climate change is real, man-made and danger-ous" (May 16, 2013)
   - "Sea levels are rising due to #climate change, potentially threatening U.S. cities: http://OFA.BO/sacMyb We have to #ActOnClimate" (July 31, 2013)

2. Diagnosing Causes: Identifying politicians who block climate change action, as well as more direct causes of ACC, like fossil fuels (though this was exceedingly rare, even through allu-sion):
   - "FACT: The Senate GOP would let polluters build power plants w/o limits on carbon pollu-tion—fueling climate change that threatens our planet" (March 21, 2013)

3. Moral Judgments: Shaming climate change deniers (directed at politicians rather than corpo-rations or individuals):
   - "Too many lawmakers still deny the science of climate change. Call them out now: http://ofa.bo/i306 #ActOnClimate" (February 18, 2015)
   - "Find out which senators just went on the record to say that man-made climate change isn't real: http://ofa.bo/c2R0 #ActOnClimate" (January 22, 2015)

4. Solutions: Identifying positive steps taken toward climate action, or calling for action from the American people:
   - "Add your name to join the team fighting back against climate change denial: http://ofa.bo/f6Mr #ActOnClimate (May 29, 2015)
   - "Investing in renewable energy helps fight climate change—and creates jobs. #ActOnCli-mate" (August 24, 2015)

   Of Obama's many tweets on the subject of climate change, eight seemed to relate more

directly to children:

> "No challenge poses a greater threat to future generations than climate change." —Pres-ident Obama #SOTU #ActOnClimate" (January 20, 2015)

> "We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations" (January 21, 2013)

> "The threat of climate change will not resolve itself. We must act now for the sake of our children and grandchildren. #ActOnClimate" (June 25, 2013)

> "If Congress won't act soon to protect future generations, I will." Today, President Oba-ma takes action on #climate change" (June 25, 2013)

"Things we know: Failing to act now on #climate change would betray our children and future generations. #ActOnClimate" (June 27, 2013)

"No challenge poses a greater threat to future generations than climate change. —President Obama #SOTU #ActOnClimate" (January 20, 2015)

"Inspired by what @Pontifex wrote on climate change. Agree we have a moral responsibility to act to protect our kids and God's creation" (June 5, 2015)

"Climate change is an issue that cannot be left for future generations—and @pontifex agrees: http://ofa.bo/a5HB #ActOnClimate" (September 25, 2015)

These tweets demonstrate that Obama, like other many other adults, employs frames of child vulnerability and futurity to inspire adult citizens' sense of responsibility and nurturance, or in other words, to drive them toward climate change action. He does this by linking references to "our children" and "future generations" with an abundance of both negative words (like "threat," "betray," and "fail,") and words evoking parental responsibility (like "protect," and "moral responsibility").

Obama's tweets about children aren't limited to climate change. In fact, he posted nearly seventy tweets relating to children and childhood over his two terms in office, with the bulk of those tweets relating to either threats to children (29% focused on lack of equality, few opportunities, etc.) or solutions for kids (41% focused on better education, childcare, etc.). While only 11% of Obama's tweets focused on children's accomplishments, 77% of his tweets about youth were positive, and less than 1% focused on children as threats (for instance, participating in gun violence).

Strangely enough, though Obama has evoked the protection of children in making his own appeals about climate change, he never made any public statement about Juliana v. United States, either online or elsewhere. The only slight indication that Obama was aware of the lawsuit was that he posted two tweets about climate change the day after the lawsuit was filed, including one tweet calling the public to action and highlighting policies that he was trying to en-

act in order to slow emissions in the US: "Retweet if you believe it's time for action on climate

change…FACT: The Clean Power Plan will cut carbon pollution by 32% by 2030. #ActOnCli-

mate" (August 13, 2015).

This lack of public acknowledgment about the youth climate lawsuit demonstrates a rare

similarity between the two presidents. Donald Trump has posted hundreds of tweets since he

became president in January, 2016, and though he often uses Twitter to fire back at those who

challenge him, none of his tweets acknowledge the lawsuit brought against him by Kelsey Ju-

liana and the twenty other youth plaintiffs. Of course, this does not mean that Donald Trump

hasn't broached the topic of climate change. Like Obama, Trump has also written plenty of posts

about climate change on Twitter, though none during his short presidency. Also in contrast with

Obama, all of Trump's ninety-one posts about climate change (occurring between 2011-2015)

took a skeptical stance, including this now [in]famous tweet on November 6, 2012: "The concept

of global warming was created by the Chinese in order to make U.S. Manufacturing non-compet-

itive." His posts about climate change most often focused on identifying climate change as a

hoax, citing economic issues, the greediness of scientists, weather, or the shift in popular terms

(from global warming to climate change) as evidence. However, his posts about climate change

stopped entirely after October 19, 2015.[225] In fact, he has only posted two tweets about the en-

vironment since becoming president, with both appearing on April 22, 2017 (Earth Day): "Today

on Earth Day, we celebrate our beautiful forests, lakes and land. WE stand committed to preserv-

ing the natural beauty of our nation," and "I am committed to keeping our air and water clean

but always remember that economic growth enhances environmental protection. Jobs matter!"

The wording of this second statement does offer a subtle clue into Trump's approach to envi-

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[225] Trump's final post about climate change on this date was the following: "It's really cold outside, they are calling it a major freeze, weeks ahead of normal. Man, we could use a big fat dose of global warming!"

ronmental communication addressing environmental issues. While he does suggest concern

about the environment in the first clause of the sentence, the second clause suggests that jobs

(including the coal industry jobs that he champions) take priority over the environment within his

administration.

When Trump evokes children or childhood in his posts, his focus tends to be somewhat

different. Of eighteen posts mentioning the terms "child," "kid," "youth," "teen," "boy," "girl,"

or "baby" between June of 2015 (when he announced his presidential campaign) and Sep-

tember of 2017, eight (44%) used words like "baby" or "child" to disparage adult opponents.

The rest focused on perceived threats to (or from) youth, including threats of teen drug addiction

stemming from Mexican drug smugglers (11%), threats of terrorist violence or youths joining ter-

rorist groups (11%), and promises of safety, future wealth, school choice, and childcare reform for

children and parents (17%). While 77% of Obama's tweets about youth were positive, 78% of

Trump's tweets about youth were negative (derogatory, or focused on threats either to or by

youths). The identification of the threats and rights that Trump chooses to focus on illustrates a

different way of framing youth and the issues that are perceived as important while raising a

child. Most of Trump's references to typical youth labels ("child," "baby," "boy") are used as in-

sults to adults. Just as feminists often claim that statements like, "you throw like a girl" perpetu-

ate the subordination of women, it might be argued that using child labels as insults may per-

petuate negative frames or stereotypes about youth. Using such terms as insults may also signal

that the childhood stage should be overcome as quickly as possible. The focus on threats like

drug addiction and terrorism suggest that youths are inclined toward misbehavior, which must

be controlled by adults. Thus, while Obama tends to focus on the protection of children from

future harm, Trump tends to focus on the protection of youths from bad decisions.

Ultimately, both politicians play on stereotypes of youth, albeit for different purposes, and neither are willing to acknowledge their fight with twenty-one kids over climate change. Whether this lack of acknowledgment is based on fear, indifference, or something else remains to be seen, though Trump's perceptions may come to the surface if the case is allowed to proceed in court on February 5, 2018 as planned.[226]

CONCLUSION

Some posters on news forums suggested that the young plaintiffs involved in Juliana v. United States were under the influence of the "evil adults" of the left. Setting aside the word 'evil,' it is true that many of the plaintiffs in this case come from strong eco-activist upbringings, and raised by politically and socially active parents. Plaintiff Sophie Kivlehan's grandfather is a well-known climatologist. Plaintiffs Isaac and Miko Vergun have an activist mother. Environmental stewardship is integral to the Native American cultures that Xiuhtezcatl, Jaime Butler, and Journey Zephier were raised in. Many other plaintiffs cite the parents, mentors, and guardians who raised them as the inspiring forces behind their activism. Adult commenters (and sometimes reporters themselves) often point to adults when discussing this lawsuit, suggesting that these kids are merely puppets for a political agenda, or an attempt to sway climate skeptics with cuteness. In fact, some news outlets go so far as to suggest that these kids have been radicalized or brainwashed. All of this suggests that the youths involved in the climate lawsuit could not be acting on their own volition.

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[226] Despite being so eager to join the lawsuit in November of 2012, the three fossil fuel giants (API, NAM, and AFPM) all filed motions to withdraw from the lawsuit in May of 2017. The intervenors did not provide a reason for leaving the case, though lead attorney for the plaintiffs, Julia Olson, alluded to a possible connection between the exit from the case, and the deadline for the fossil fuel intervenors to respond to the plaintiffs' request for admissions (Court Document 169). By the date when the intervenors' responses were due, all three of the fossil fuel intervenors had filed a motion to withdraw.

The question is, does acting in accordance with one's upbringing de-legitimize one's actions as agential? When kids follow the teachings of their parents and mentors, we might assume that they are puppets of their parents. But aren't all human beings influenced by their upbringings? Don't all people continue to be influenced by the important people and experiences in their lives as adults (including children)? Most often, it seems that we reserve the label of "agential" for youths who reject the values and lessons of adults, demonstrating an opposing perspective. But what about when kids build upon what they were taught? While many of these kids point to their parents and mentors as influential figures in their lives, who taught them to act as environmental stewards, their online presence seems to go far beyond the status of obedient children. Some of these youths (like Xiu, Itzcu, and Aji Piper) create music and art to share environmental messages with other kids via web 2.0. They sing songs, write blogs, post videos, and exhibit an overwhelming number of environmental posts on their social media accounts. In fact, perhaps youth demonstrate an even deeper ability to communicate than adults, because they are forced to navigate communication with adult and youth audiences differently, attempting to prove at once that they are both competent social actors, and real kids at the same time.

At what point do we take a deep breath and admit that maybe, just maybe, these kids are not simply extensions of their parents and mentors, but true agents of change in their own right? At what point do we lay down our own adultist assumption that surely adults must be behind every significant act that is on par with adult accomplishments, and give kids some credit? Of course, there have probably been plenty of cases of adults exploiting youth for their own agendas (and chapter 1 provided several potential cases of youth exploitation). But by assuming that these kids are the mere puppets of their parents (or of lawyers and politicians), we take power away from them, and we fall into the "kids as empty vessels" trap that so underestimates

children that it also blinds us to their abilities and limits the possibility for creative, mutually-ben-

eficial partnerships. When politicians team up with kids, by advising them on civic participation

(as Eugene, Oregon mayor Kitty Piercy did), kids can make real change through informed partic-

ipation in local (or even national) politics. When lawyers take kids' concerns seriously and advise

them on how to navigate the court system, youth can advance their perspectives in ways that

can drive real changes in policy. At the very least, perhaps it is time to show enough humility to

realize that adults have made a mess of things, and that youth could prove powerful allies in de-

vising creative solutions and a productive path forward. Indeed, youths all around the world are

participating in a variety of ways. Dozens of youth climate action groups are marching in the

streets, speaking up online, and pushing for change. Online spaces like PBS Kids' EekoWorld

and the Voices of Youth forum allow kids and teens to share their perspectives about pressing

environmental issues. Similarly, on sites like DoSomething.org and Jane Goodall's Roots and

Shoots website (rootsandshoots.org), kids and teens can participate in social action efforts and

share their progress with communities of like-minded youths. Thus, perhaps despite adults' best

efforts to protect kids from participation, they are finding ways to do so.

Ultimately, there is no way of truly knowing who is behind the words and actions of these

young activists. Perhaps that is why both the media and the public are so divided when dis-

cussing the young plaintiffs' participation in the case. We are—and will continue to be—guided

by mental and media frames: frames of climate change, frames of kids, and frames of the world

that we live in. However, our frames do not always reflect reality. As long as adults frame children

and youth as naive, innocent, and vulnerable, youth activists will be forced into performative ne-

gotiations in order to participate in discourse and action. The twenty-one youths of Juliana v.

United States are just one public display of kids' capacity for energetic activism and creative

problem-solving, despite the many hoops that they must jump through in order to participate.

What might kids accomplish without the restrictions resulting from adults' current frames of children and childhood? What might we accomplish together?

CONCLUSION

While much of the world has come together around the issue of climate change, it seems that the US is only growing more polarized, with each side fiercely clinging to a particular set of climate change frames. This rift became increasingly visible during the transition between two presidents with vastly different climate action agendas. As I hope this project has illustrated, perceptions of climate change run far deeper than the issue itself. Rather, our frames of climate change are situated within a larger system of frames, from perceptions of the environment, to political perspectives, our core values, and our very identities. For many, the words "climate change" are a trigger, resulting in a cascade of other related thoughts that guide individual reactions to climate change messaging. Ultimately, this means that our views are difficult to shake, and communication across party lines can be a challenge.

Shared frames of children act as an easy entry point for those who wish to communicate across divides, since adults within both parties are passionate about their children. This project has demonstrated a clear relationship between our enduring frames of children and our framing of the climate change debate. This project also shows the wide reach and depth of adult frames of children and childhood, and how those frames are used across a range of climate-related media and discourse. In chapter one, I argued that our mental frames of children—which are already connected with our frames of nature—can be employed differently by groups with opposing interests in order to frame the debate about climate change. In chapter two, I demonstrated that our frames of children have helped to drive a panicked national dialogue over the framing of climate-related education, with each side of the debate clamoring to have final say in the informational gatekeeping process. Chapter three dove more deeply into potential conflicts of interest in the children's media industry, illustrating that companies catering to a broad audience

may feel compelled to minimize the significance of the climate change issue. In the final chapter, I highlighted the ways that youth navigate within and around adult frames of children and teens in order to participate in climate discourse more fully.

Together, these chapters serve to identify the potential damage caused by the repetition of child frames, and the framing of climate change for youth audiences. Each time frames of victimized, naive children are repeated, they reinforce the perceptions that subordinate youth, further relegating youth to roles of powerlessness, and often resulting in their restricted access to knowledge and opportunities to participate. These restrictions—illustrated in the ways that climate change is framed for youth in educational and entertainment media contexts, as well as laws established to restrict children's participation online—also make it far more difficult to find examples of youth climate action than examples of youth climate victims.

These frames of youth are not only damaging to them, but to our society as a whole. After all, our country once restricted the rights of minorities and women to both learn and participate in the social decision-making process.[227] For instance, many white Americans once believed that African American slaves lacked the capacity for learning (a belief that was contradicted by laws forbidding slaves from learning to read). As Monique Morris writes, "to read challenged the oppressive, controlling logic of slavery and the presupposed inferiority of Black people" (5). Likewise, many men once believed that women were intellectually inferior, and too delicate for higher education or politics (Foster 137).

Do these arguments sound familiar? Indeed, these subordinated groups were often treated and framed in ways that are similar to our treatment and framing of children today.

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[227] Of course, it can certainly be argued that our country still has systemic barriers that deny these rights to subordinated groups.

Imagine where we would be without the many great American activists who have identified as racial minorities, females, or both: Mary Harris, Martin Luther King, Jr., Frederick Douglas, Ida B. Wells, and Rachel Carson, to name a few. How much insight and change would we have missed by continuing to enforce the innocence and ignorance of these groups? Further, is it so hard to think that we might miss just as much by continuing to suppress youth as we do? As the few available examples of youth action in this project demonstrate, kids have much to contribute in the world if encouraged—or even allowed—to do so. After all, think of what some youth have accomplished even without being allowed.[228]

This is not to suggest that our society should adopt a new, one-size-fits-all frame of youth in which kids are seen as adults' equivalents in every way. History tells us that such generalizations are usually harmful,[229] and I expect that they will continue to be harmful in the future.[230] Rather, my aim is to suggest that—as much as possible—we consider individual differences and give youth the encouragement they need to feel empowered and valued as citizens in an ever-changing world. We must respect their ideas and value their contributions. Undoubtedly, this might mean that children act against our objectives just as much as they help to achieve them. But children are individuals just as adults are individuals, and our differences must be both considered and respected. Those who cannot handle information about climate change will undoubtedly avoid that information or dismiss it when it disagrees with their own frames—just as

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[228] Here I am thinking of Malala Yousafzai, Ruby Bridges, and many more that we may never hear about.

[229] For instance, during the period of American history when children were fully engaged in the workforce alongside adults, children's small size often left them subject to exploitation and human rights violations. It is impossible to say whether holding children to the same standards as adults would suit all children, just as it is impossible to say whether all children are being poorly served by our current perceptions of children.

[230] In a more literal sense, many argue that children have been seen as miniature adults in the past, and those perceptions led to many abuses of children, who are undoubtedly physically weaker than adults.

adults do. The gatekeeping of information, however, can never truly protect a person from a real threat.

In addition to considering how we frame the issue of climate change for youth, it may also be important to consider how we frame climate change for adults, as well. As biologist Sandra Steingraber writes about what she sees as the positive framing of climate change in children's cli-fi:

> To read the [cli-fi] children's literature is to see the world's people called to a greater purpose, working ardently and in concert with each other to solve a big problem—and enjoying a grand adventure while they're at it . . . Is this the fiction under which we all should be laboring? I don't know. I do know that fatalism, which affects many adults, but almost no children, is a big part of what's preventing us from derailing the global warming train that's now left the station. I do know that we grown-ups also need visions of effective challenges and radical actions that can turn into self-fulfilling prophecies. (177)

Of course, Steingraber's statement seems to generalize based on assumptions about middle-class, white, happy, safe kids and childhoods,[231] thus ignoring children who have already witnessed losing battles between people and corporations, communities and climate change. However, she may also have a point about the "visions of effective challenges and radical actions" represented in children's climate change media. The perpetual parade of gloom and doom that is present in most climate change information for adults does not seem to be working, either. Rather, such frames often inspire feelings of defeat and helplessness in believers of anthropogenic climate change, and cries of alarmism from climate deniers. Perhaps, while we owe it to children to provide more information about climate change, we also owe it to ourselves to think more deeply about how to frame climate change for a variety of adult audiences. After all, framing is not merely a tool for manipulation. Framing (or reframing) can be used to address

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[231] After all, this author does spend much of her book discussing her family's extended remodeling project in their suburban home, suggesting a firmly middle-class perspective.

the particular needs of target audiences, and help us to communicate across divides, or to help us to understand issues—and each other—better.

Reframing efforts also have the potential to change national narratives, thus redefining and empowering subordinated groups. For instance, this project illustrated many instances in which special interest groups, media, and individuals employed our natural connections between nature and children to show how vulnerable children (like vulnerable nature) are being victimized by either manmade climate change or climate change action. Suppose that instead, child advocates and the media began drawing on our perceptions of nature as a powerful force, using our links between child and nature to depict youth as a strong force for positive social change? When we look closely enough, there is a growing number of examples to support this frame. Despite the restrictions placed on them, youth are finding paths toward participation, through actions both large and small. In many cases, the participation of youth has yielded an incredible response, as was the case with Itzcu's silence strike.

Ultimately, each of the chapters in this project demonstrated that representations of youth (and subsequently, the information we choose to provide or deny to youth) belies underlying doubts about the capacity of young people to handle the truth or participate in meaningful discussions about climate change. Our communications with and about youth and climate change suggest that we prefer to protect youth from the knowledge of potential threats rather than prepare them to fight against those threats. Whether in fiction, advertising, news, curriculum, or public discourse, I have argued that youth are being used to drive adult agendas without being included in discussions, and that they are being "protected" from information at the expense of having a real, informed chance to protect themselves from an altered-climate future. In the end, we must ask ourselves why we wish to suppress youth knowledge and participation as we do. Do

we truly aim to protect youth, or does their participation threaten our own sense of authority, or

our desire to believe that there is some corner of humanity that still feels safe? Are the underly-

ing reasons for our selection of frames worth the consequences? There may be substantial bene-

fits to rethinking the way that we frame youth capabilities, openly sharing and discussing infor-

mation with youth, and forming cross-generational partnerships to address the issues that impact

us all. I believe that those benefits are worth the effort.

Appendix A: Examples of Project Coding Structure

Project Codebook

CODE	DEFINITION	EXAMPLE
Problem: Unidentified	There is no visual or textual/spoken evidence that there is a problem within the text.	
Problem: Allusion	There is an allusion to the problem, but no specific problem statement.	*I can't believe that it's seventy-five degrees in winter… again! We'll never get to go sledding!*
Problem: Identified	The problem is identified for the audience, but not explained in detail. The viewer is expected to trust the media creator that the identified problem IS indeed happening (since no detailed explanation is provided). Alternatively, this kind of message may target an audience that is expected to know/understand the details already.	***Pro-fossil fuel message example:*** *We need more fuel.* ***Environmental message example:*** *Climate change is threatening children.*
Problem: Explained	The problem is explained in greater detail to the viewer (science, reasoning, examples, etc.)	***Pro-fossil fuel message example:*** *We need more fuel in order to fulfill the energy needs of a growing population.* ***Environmental message example:*** *Climate change is threatening children by increasing the severity of tropical storms in coastal regions where many children live.*
Cause: Unidentified	Does not identify or even allude to a source of blame for the problem.	
Cause: Allusion	Blame is only implied.	*Emissions are mentioned in conjunction with a first person inclusive plural pronoun ("even if **we** don't emit…"), suggesting that the producer and the audience are at least partially to blame for CO2 emissions.*
Cause: Identified	The supposed source of the problem is identified	*big oil, adults, Mother Nature, etc.*
Cause: Explained	The text provides an reasons for why a particular group or party is to blame.	*Exxon has been conducting climate change research for years, and is fully aware of the damage that their product causes to the climate. Still, they continue to focus on the extraction and production of fossil fuels.*
Moral Judgment: Unidentified		
Moral Judgment: Allusion (+)	A group or party involved is described or mentioned in conjunction with **positive** nouns, adjectives, verbs, etc., OR is positioned in direct opposition with something labeled as negative.	*Chevron is working side-by-side with **mothers** to **save** their **children**.*
Moral Judgment: Allusion (-)	A group or party involved is described or mentioned in conjunction with **negative** nouns, adjectives, verbs, etc., OR is positioned in direct opposition with something labeled as positive.	*Oil companies want to extract oil up North, which will **destroy Santa's** home!*
Moral Judgment: Identified (+)	An explicitly **positive** label is applied to a specific group or party involved.	*Greenpeace: a force for **good**.*
Moral Judgment: Identified (-)	An explicitly **negative** label is applied to a specific group or party involved.	*Exxon is **evil**.*
Moral Judgment: Explained (+)	The audience is provided with specific reasons for **positive** characterizations of a specific group or party.	*Chevron employees are doing **good** in African communities, by delivering the vaccines needed to **save children** from disease.*
Moral Judgment: Expained (-)	The audience is provided with specific reasons for **negative** characterizations of a specific group or party.	***Heartless** Shell Oil executives are **plotting** to extract Arctic oil that—when burned and released into the air as CO2—will **decimate** the Arctic wildlife population!*
Responsibility: Unidentified	Does not identify or even allude to a source of blame for the problem.	
Responsibility: Allusion	Blame is only implied.	*Emissions are mentioned in conjunction with a first person inclusive plural pronoun ("even if **we** don't emit…"), suggesting that the producer and the audience are at least partially to blame for CO2 emissions.*

Project Codebook

Responsibility: Identified	The supposed source of the problem is identified	*big oil, adults, Mother Nature, etc.*
Responsibility: Explained	The text provides an reasons for why a particular group or party is to blame.	*Includes an explanation about how a fossil fuel company has been conducting climate change research for years and knows about the damage of their product, and still continues to focus on fossil fuels.*
Solution(s): Unidentified	Does not identify or even allude to a source of blame for the problem.	
Solution(s): Allusion	Blame is only implied.	*Emissions are mentioned in conjunction with a first person inclusive plural pronoun ("even if **we** don't emit…"), suggesting that the producer and the audience are at least partially to blame for CO2 emissions.*
Solution(s): Identified	The supposed source of the problem is identified	*big oil, adults, Mother Nature, etc.*
Solution(s): Explained	The text provides an reasons for why a particular group or party is to blame.	*Includes an explanation about how a fossil fuel company has been conducting climate change research for years and knows about the damage of their product, and still continues to focus on fossil fuels.*
Youth Rep: Neutral/ Unidentified	The researcher was not able to garner a clear frame of youth through the images or text in the media.	
Youth Rep: Agents	Youth are presented as agential and competent by showing a strong understanding of problems, devising solutions to problems and/or taking action to solve problems.	*Child character: "We can convince our parents to walk to work instead of driving!"*
Youth Rep: Futurity	Youth are presented as humanity's future; in other words, the discussion of youth does not address the value of children as they currently are, but their value to the future of humanity (as the future workforce, etc.).	*Chevron is helping to educate the leaders of tomorrow.*
Youth Rep: Nurtured/ Protected (Innocents)	Youth are presented as cute and/or innocent, but also safe, secure, and protected/provided for by adults	*Keep her feeling safe and warm by…*
Youth Rep: Troubled/ Pathological (Problem Child)	Youth are presented as pathological, troubled, selfish, etc.	*Danny was in trouble again for shoplifting.*
Youth Rep: Victims (Imperiled Child)	Youth are presented as imperiled or endangered by the featured problem.	*Climate change is harming children worldwide.*

CODING EXAMPLES:

Definition of a Problem:

Within this study, texts could be coded as implicitly or explicitly identifying a problem, through writing, speech, or image. For instance, an advertisement that depicts a child standing on a melting iceberg with a noose around her neck merely alludes to the issue of climate change. In contrast, other texts explicitly referenced a problem (like 'climate change' or 'global warming') in negative terms. Texts that explicitly identified a problem were coded differently depending on whether they merely identified the problem or actually explained the problem.

Problem identified without explanation (from Strasser's cli-fi book, "Is That an Angry Penguin in Your Gym Bag?"):

> "How can it be eighty-five degrees in the middle of winter?" asked TJ.
>
> "That's what global warming is all about, little dude," said Leyton. "You better go change or you'll be really hot and uncomfortable at school today." (Strasser 9-10)

Problem identified with explanation (from Corwin's cli-fi book, "The Great Alaska Adventure"):

On the way back to town, Will talked a little bit about how the tundra has been changing. He told them that with shorter, warmer winters, the layers of frozen earth beneath the tundra could thaw, creating an unstable environment. The permafrost, as it was called, would also release large amounts of carbon into the air as it thawed. Carbon was one of the gases causing climate change in the first place, and widespread release of large amounts would speed the process. (88-9).

<u>Diagnosis of Causes:</u>

Texts that identified a causal agent (or cause of the problem) were coded differently depending on whether causes were explicitly stated or only implied.

Implicit: Average citizens or families are implicitly blamed for contributing to climate change in an ad which shows a family wasting energy (by leaving the TV on when they aren't in the room, turning the heat up too high, etc.) while the narrator announces that "the energy we waste. . .

produces tons of CO2" (ACT CO2). This is accomplished by featuring a wasteful family while

using the pronoun 'we.'

Explicit: Another ad explicitly states that "Pepsi is using one of the dirtiest oils on Earth, carbon-

intensive Canadian tar sands. This secret ingredient hurts our air, our water, wildlife, and a whole

lot of people, including you" (Sierra Club).

Moral Judgments:

Texts frequently made moral judgments about groups and individuals through the use of positive

or negative adjectives, nouns, etc. For instance, when a person or group was described as

'good,' 'kind,' etc., the description was coded as a positive moral judgment. When a person or

group was described as 'bad,' 'irresponsible,' etc., the description was coded as a negative

moral judgment.

Suggested Solutions:

A text was coded as including solutions whenever images or descriptions of potential solutions

were included in the text. These solutions were coded differently depending on whether the so-

lutions pertained to individual (replacing home lightbulbs) or systemic (regulating the fossil fuel

industry) changes.

Valence (loss versus gain frames):

When texts focused primarily on positive gains (eg. the money that a family could save by turn-

ing down the heat), they were coded as having an overall positive valence. When texts focused

primarily on negative consequences (eg. The increased likelihood that a parent's child will develop asthma as a result of unregulated pollution), they were coded as having an overall negative valence. If a text generally seemed to lack gain or loss frames, they were coded as having a neutral valence.

Framing of Youth:

Youth subjects and characters were coded as falling into the following different categories:[232]

- Youth as victims (the imperiled child)

- Youth as troubled or pathological (the 'problem child')

- Youth as nurtured innocents (the 'normal' child)

- Youth as the future (futurity)

- Youth as empowered/agents of social change

Children were coded into these categories based on their words, actions, and appearance, as well as their treatment by others (especially adults). For instance, a child who decides to convince his family to be more green would be coded as a social actor. A child who is shown drowning in rising ocean water is coded as the 'vulnerable child.'

SAMPLE CODING (see fig. 13 for image of advertisement):

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[232] It is important to consider that these categories are not mutually exclusive, and frames are sometimes overlapping. For instance, a child may be depicted within the same story as a nurtured innocent and an agent of social change. Further, a child character may perceive himself to be a social agent, while an adult character depicts him as a victim.

SHELL "LIGHTS ON" CODE LIST

QUOTE #	QUOTE TEXT	CODES	NOTES
214:15	BASIC INFO:	YEAR: '14 PRODUCER: Shell TYPE: Print Ad TARGET: Adults	
214:16	OVERALL FRAMES:	PROBLEMS: Explained + Allusion CAUSE: Unidentified MORAL JUDG: Allusion (+) SOLUTION(S): Identified + Allusion RESPONSIBILITY: Allusion YOUTH REP: Nurtured/Protected VALENCE: Positive RESPONSIBILITY: Identified + Allusion	CAUSE: Ultimately "unidentified" because no group or party is actually blamed. The closest we get to causal interpretation here is blaming the "energy-hungry" world. MORAL JUDGMENT: Positive allusion to Shell as helping to "keep the lights on" and deliver fuel/electricity to the world. PROBLEM: The problems of overpopulation and increased energy needs are explained somewhat. Implicature is used to allude to other problems—threats to our modern lifestyle and potential energy shortages if we reduce any of our available energy sources (most likely implying the consequences of fossil fuel restrictions). SOLUTION: Solutions included using all available energy sources (incl. fossil fuels), reducing emissions, and finding/developing additional energy sources. VALENCE: Though negative problems are implied, this advertisement generally uses positive language and an overall gain frame which focuses on benefits (continued modern lifestyle, keeping lights on, etc.). YOUTH REP: Youth are presented as nurtured and cared for by Shell and the audience of adults.
214:2	VISUALS:	Colors: Warm/Bright (+) Juxtaposition YOUTH REP: Nurtured/Protected	Juxtaposition: multiple objects in this image make connections with nature: polar bear, tree with owls, star, snowflake pajamas, flower/leaf-themed bed spread… By showing objects evoking nature alongside Shell's message, Shell may be attempting to create positive associations of nature with the company. Warm, bright colors in the room.
214:25	efficient	Adj./n./v. (+)	
214:23	we're delivering natural gas to more countries than any other energy company	MORAL JUDG: Allusion (+)	
214:26	grow up	Metaphor	
214:24	advanced	Adj./n./v. (+)	
214:6	Many experts agree it will be a considerably more energy-hungry one	MODE of P: Ethos Problem (Ex): Need Energy Metaphor Cause (who?): Inanimate/Abstract	Ethos: Experts used for persuasion Cause: Blaming the energy-hungry world, not the people in it. Metaphor: the world as a hungry animal, feeding on energy
214:21	We're making our fuels and lubricants more advanced and more efficient than before. With our partner in Brazil, we're also producing ethanol, a biofuel made from renewable sugar cane. And we're delivering natural gas to more countries than any other energy company. When used to generate electricity, natural gas emits around half the CO2 of coal.	MODE of P: Logos Adj./n./v. (+)	

SHELL "LIGHTS ON" CODE LIST

214:3	Let's keep the lights on for her when she's your age	1st person plural (inclusive) RESPONSIBILITY: Allusion Responsibility (who?): Audience Responsibility (who?): Corporations Implicature PROBLEM: Allusion Problem (Ex): Modernity Threatened Problem (Ex): Need Energy YOUTH REP: Nurtured/Protected	1st person plural…Creates unity between audience and Shell
214:22	we're	1st per.pl. (exclusive)	Employees of Shell
214:20	little	Diminutive	
214:19	natural gas emits around half the CO2 of coal	SOLUTION: Allusion Solution (Ex): Reduce Emissions	
214:10	look at every possible energy source	SOLUTION: Identified Solution (Ex): Alt. Energy Solution (Ex): Continued Fossil Use Minimizing	Minimizing: The use of the verb "look" rather than "use" seems to minimize or soften the severity of Shell's actions; rather than using up natural resources, they are looking at natural resources. Every possible source = fossil fuels, renewables, etc.
214:11	At Shell we're exploring a broad mix of energies	RESPONSIBILITY: Identified Responsibility (who?): Corporations	
214:8	There are already seven billion people on our planet. And the forecast is that there will be around two billion more by 2050.	MODE of P: Logos PROBLEM: Allusion Problem (Ex): Overpopulation	Appealing through logic: more people = more resources necessary
214:13	Let's broaden the world's energy mix	1st person plural (inclusive)	Creates unity between audience and Shell
214:12	we're also producing ethanol, a biofuel made from renewable sugar cane	Solution (Ex): Alt. Energy	
214:14	we will need to look at every possible energy source	Imperative	
214:9	if we're going to keep the lights on for her	YOUTH REP: Nurtured/Protected RESPONSIBILITY: Allusion Responsibility (who?): Audience Responsibility (who?): Corporations PROBLEM: Allusion Problem (Ex): Modernity Threatened Problem (Ex): Need Energy Implicature MODE of P: Pathos Repetition	Responsibility: suggests adults' (audience and Shell) responsibility for ensuring that kids get the continued benefit of a modern lifestyle (ie electricity needs and wants met).The line "keep the lights on" associated with having a loved one waiting at home for your safe return; suggests the care/nurturance of the featured child (who symbolizes children generally).Implies the possibility of the lights NOT remaining on. Also perhaps assumes that the audience wants energy consumption to continue at the current rate for the next generation.
214:4	What sort of world will this little girl grow up in?	Tactic: Engaging/Addressing Audience	Drawing audience in with a question

Appendix B: Advertising Selection Process

The selection of organizations and advertisements was based on the following criteria:

1. **Organization type:** the selection of for-profit organizations was limited to oil and gas companies.[233] The selection of nonprofit organizations was limited to environmental or children's organizations, though governmental advertising was considered in limited cases.

2. **Broad audience reach:** based upon *either* the size of the organization (as indicated by revenue reported in 2016)[234] or advertisement viewership.[235] This criteria ensured that both broadly recognizable organizations and key players in climate discourse were considered, and that advertisement exposure was high.

3. **Advertising content:** based upon a focus on climate-related issues[236] and the inclusion of either children or symbols of childhood.[237] Both commercials and print advertisements were considered.

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[233] This criteria is based upon EPA research identifying the fossil fuel industry as the largest source of corporate CO_2 emissions, as well as one of the most powerful forces working against climate change action (EPA 2016; Heede 2013).

[234] Different revenue criteria was required for fossil fuel and nonprofit organizations, since most nonprofits see a fraction of the revenue raked in by fossil fuel companies. To be considered, a fossil fuel company needed to exceed a 2016 revenue of $130 million (placing them in the top ten worldwide). Children's and environmental nonprofits were considered only if they exceeded $30 million in 2016 revenue. Please note that there were some organizations that met revenue or viewership criteria, but were ultimately excluded based on a failure to meet other advertising content criteria.

[235] Based on number of views on YouTube; pertains to commercials only. No data available for print advertisement views. Only advertisements with greater than 100,000 views were considered eligible as case studies within this chapter, though otherwise eligible ads were coded for presence of framing elements and representation of children and childhood.

[236] Fossil fuel and nonprofit advertising necessitated different definitions of "climate-related issues," since—as framing scholarship indicates—the inclusion of environmental buzzwords would be bad practice for opponents of climate change action (Lakoff). Instead, fossil fuel advertisements were considered connected to the issue based on data linking fossil fuels to climate change.

[237] Although symbols of childhood are difficult to define with real clarity, they were defined in this study as people, places, things, and events that are commonly associated with children's culture.

4. **Language:** only English-language advertisements were considered.[238]

5. **Year:** only advertisements produced between 2007 and 2017 were considered.

Based on this criteria, forty for-profit and forty-one nonprofit advertisements were se-

lected for a total of eighty-one advertisements (see table 6 below).[239]

Table 6: Selected For-Profit and Non-Profit Organizations

For-Profit Organizations	Non-Profit Organizations
Chevron (17)	Greenpeace (14)
Royal Dutch Shell (11)	UNICEF (10)
Exxon Mobil (10)	Environmental Defense Fund (EDF, 7)
British Petroleum (BP, 2)	The Sierra Club (5)
	World Wildlife Fund (WWF, 2)
	The Other 98% (1)
	The Ministry of the Environment and Climate Change, Government of Ontario (OnGov, 1)
	Copenhagen Climate Summit COP15 (1)
FP Total: 40	**NP Total: 41**

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[238] Language criteria was based upon the researcher's language limitations. For the sake of time, advertising searches were conducted only for companies and organizations based in a country with English as an official language.

[239] 80% of selected advertisements were released in the last six years (2011-2017), and 73% were produced in either the UK or the US. 84% of selected advertisements were commercials, and 16% were print advertisements. It should be noted that another fifteen relevant advertisements were analyzed and found to support overall trends. However, these ads were ultimately excluded from study statistics due to low public exposure and organization size.

Appendix C: Greenpeace Ad Transcript

Title: An upload from Santa himself: "Christmas 2013 might be cancelled!"

Channel: Greenpeace UK

Date Posted: 11/30/2013

Views: 202,231 (+1,167/-1,051; 1,073 comments)

Web Address: https://www.youtube.com/watch?v=BIbnPlMwfMw&index=51&list=PLcZEO1p-I0uKvFqH4-pU1a4IvEvF6cpwcO

Youtube Description: A distressing picture of our childhood hero, knee deep in water. Thankfully with your help, Santa's workshop has been saved - at least for 2013. To help us keep his North Pole home safe from destruction, please sign up at http://www.savethearctic.org/

TRANSCRIPT:

Santa:

Dear Children. Regrettably, I bring bad tidings.

For some time now, melting ice here…in the North Pole has made operations, our day-to-day life intolerable, and impossible, and there may be no alternative but to…cancel Christmas.

I have written personally to President Obama, President Putin, all world leaders… Sadly, my letters have been met with indifference. Needless to say, these individuals are now at the top of my naughty list.

My home in the Arctic is fast disappearing, and unless we all act urgently, then, I have to warn you of the possibility of an empty stocking forevermore.

Please, help me.

Text Banner: SaveSantasHome.org | Greenpeace | Search 'Santa's Home'

Appendix D: Chevron Ad Transcript

Title: Chevron Helps Inspire Future Innovators

Channel: Chevron

Date: 3/20/2017

Views: 101 (+4/-0; **comments disabled**)

Web Address: https://www.youtube.com/watch?v=2kERyBZbWXQ

YouTube Description: Fuel Your School helps fund classroom projects that bring science, technology, engineering, and math – STEM -- learning to life to inspire the next generation of innovators.

TRANSCRIPT:

Girl 1:   I want to be a doctor.

Boy 1:   I want to be an astronaut.

Girl 2:   I want to be a marine biologist.

Teacher 1:   Fuel your School has been absolutely phenomenal.

Teacher 2:   Last year, I received some materials from Fuel Your School. These materials provide an opportunity for them to be able to bring real-life experiences into the classroom.

Girl 3:   We had to make these buildings out of rocks.

Boy 2:   And we learned about the brain and the parts of the brain.

Teacher 3:   The books that I received actually give kids nonfiction texts and that brings, actually learning to life, because they see science in action.

Teacher 4:   We've received a bunch of equipment to be able to do science projects. Gardens benefit the kids in so many ways because they learn about science by get-

ting into it hands on. They actually get to grow things. The students are so ex-

cited

Text Banner: Chevron's Fuel Your School helps fund classroom projects in participating com-

munities, giving students skills and resources they need to succeed.

#FuelYourSchool

www.fuelyourschool.com

Appendix E: Ontario Government Ad Transcript

Title: Kids Talk Climate Change

Channel: OnGov

Date Posted: 06/02/2016

Views: 457,330 (+105/-87; 15 comments)

Web Address: https://www.youtube.com/watch?v=7B2uTVXuv3E&list=PLcZEO1pI0uKvFqH4-pU1a4IvEvF6cpwcO&index=58

 Youtube Description: Ontario is taking action on climate change. We're building on the progress we've made to end coal-fired electricity generation, build transit-friendly communities and help businesses reduce emissions. Together with our partners across Ontario and around the world, we're working to better protect the environment, our health and a strong economy.

Be part of Ontario's plan to fight climate change and help build a cleaner, more sustainable future for generations to come at https://www.ontario.ca/climatechange

TRANSCRIPT:

Text: How will you stop climate change?

Girl #1: Dear adults:

Boy #1: Dear grownups:

Girl #1: you are not listening to children.

Boy #1: Earth gets hot.

Boy #2: It's melting the ice and its falling into the ocean and then its melting in the ocean and raising sea level.

Girl #1: We will not have more trees or plants for oxygen.

Boy #3: So the planet's feeling sad. I don't know if you can see the tears there.

Boy #4: Dear Earth:

Girl #2: Get well soon.

Boy #5: This is my idea

Boy #2: My idea

Girl #3: My idea for solving climate change.

Boy #3: It's kind of like sunscreen for the planet.

Boy #2: Little cars are using solar panels.

Girl #3: The air gets into the car through this little air hole.

Girl #4: The fan should be on super high speed.

Girl #5: The sun is going into the solar panels.

Girl #1: Climate change sucks.

Girl #5: Sucks

Boy #2: Sucks

Boy #3: Climate change is serious. It's not like it's fake or anything. It's not like it's an April Fool's

Joke. It's real.

Text Banner: Let's not leave this for our kids to figure out. Our today. Their tomorrow.

Be a part of Ontario's climate change action plan, at ontario.ca/climatechange

Appendix F: Chapter Two Selection Process

Within this chapter, the selection of discourse and educational materials was based upon the following research steps:

1. **National News Sources:** I was primarily interested in online discourse and media that was part of the national debate about climate change education, in order to illustrate differing viewpoints as they relate to children's climate change education. In order to do this, I first determined the seven most-visited news sites in the US using trusted website analytics resources (see table 7 below).[240] Four of the resulting sites are primarily consumed by a liberal audience, while three of the sites have a conservative-majority audience.[241] This variety of political perspectives was important to my goal of sampling perspectives from across the political divide, which will hopefully assist in understanding different viewpoints and looking for better ways to communicate across party lines to reach common goals. Of course, these perspectives (or sometimes the lack of perspectives) demonstrate a need to increase communication with children, as well.

2. Next, I began searching the selected news sources for the term "climate change," paired with an assortment of education-based terms ("education," "school," "teacher," "curriculum").

3. These searches resulted in 106 news articles (49 from right-leaning sites, and 57 from left-leaning sites), which were combed for references to key players within the ongoing climate change curriculum debate. Such references could include teachers and administrators, politicians, parents, students, corporations, and nonprofit organizations (including political think-tanks, research groups, coalitions, and environmental organizations). Articles were also

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[240] This information was derived from Alexa, which is a trusted resource in web analytics. News sites were selected from Alexa's list of the most visited 500 websites in the US as of May 2017.

Excluded from my search were sites that did not qualify as sources of original news content (i.e. sites that merely compile articles derived from other news sources; this includes reddit.com, news.yahoo.com, news.google.com, and vice.com). Also excluded were sites that convey news of a highly specific—and unrelated—sort (including weather.com, accuweather.com, and a variety of sports news sites). Please see this list in appendix A.

[241] Audience political affiliation was determined by a Pew Research Center report on the primary news sources chosen by conservative and liberal Americans in 2014.

combed for references to controversial educational materials that presented a perspective on climate change-related content.

4. Searches were then conducted for the educational media, groups, and individuals identified as key players in the national debate. Relevant blogs, lesson plans, educational media documents, and press releases were pulled from these searches, and analyzed for framing patterns.

Case studies within this chapter focused on the discourse surrounding specific educational materials. These case studies were selected based upon one of two factors:

1. The material was widely discussed by national news sources, and thus, part of the national climate change education debate, or

Table 7: Selected National News Sources

Primarily Liberal Audience	Primarily Conservative Audience
CNN (ranked #1) cnn.com	*Breitbart News* (ranked #5) breitbart.com
The New York Times (ranked #2) nytimes.com	Fox News (ranked #6) foxnews.com
Washington Post (ranked #3) washingtonpost.com	*Conservative Tribune* (ranked #7) conservativetribune.com
HuffPost (ranked #4) huffingtonpost.com	

2. The material was widely used or referenced by educators and others identified as key players within national news sources.

Limitations

The intended aim of this chapter was to analyze not only the frames contained within educational climate change media and curriculums, but to get a sense of the discourse surrounding the climate change curriculum debate. The landscape of this debate is an important indicator of adult perceptions of politics, children, and climate change. Finding the threads of this discussion proved quite a challenge, particularly where teachers were concerned. While public fig-

ures—such as nonprofit and corporate spokespersons—supplied their opinions to the public with abundance, the opinions of less-public figures (like teachers and parents) were more challenging to locate. Thus, this chapter does have the limitation of a small, unrepresentative sample of adult perspectives Nevertheless, the identified examples demonstrate some of the variety of adult perspectives that exist on this important subject.

There are a few potential reasons why teacher perspectives in particular may be rather scarce online. First, as Plutzer's study suggests, teachers may feel pressure from administrators, parents, and other faculty members to take opposite approaches to climate change education (though reports of such pressure was low). Considering how controversial the issue is, teachers wishing to avoid confrontation may choose not to post their climate change perspectives and lesson plans online for public view (that is, if they choose to teach climate change at all, since it is only mandated in eighteen states). Particularly difficult to find were the perspectives and lesson plans of teachers who identify as skeptical or dismissive of anthropogenic climate change, though 30% of Plutzer's participants fell into this category (664). Though curriculums tied to the fossil fuel industry were hotly contested in the news media, very few teachers seemed to use such curriculums online. One possible reason for this is if the teachers most likely to use free corporate-authored curriculums are those who work in under-funded schools (Rhodes). Those under-funded teachers may be less likely to have use of computers in the classroom, and thus, have less reason to use the web to post course content in the first place.

With these limitations in mind, an analysis of the available perspectives yielded some rich and interesting perspectives that spring from the introduction of climate change curriculum standards, and the lessons that either support or oppose ACC science.

Appendix G: Alexa's "Top Sites in the United States"

Appendix H: Scholastic's "Shedding Light on Energy"

Appendix I: Scholastic's "United States of Energy" (selected pages)

Appendix J: Selected Pages from Winning CEDAR Coal Units

Appendix K: Heartland Institute's Letter to Science Educators

Appendix L: <u>izzit.org</u> Unstoppable Solar Cycles *Teacher Reviews*

Appendix M: Student Presentation

Appendix N: Chapter Three Selected Fiction

Selected literature must qualify as climate change fiction (or cli-fi) to be included, meaning that its plot has a strong connection to the issue of climate change. All selected cli-fi was produced between 2006 and 2016, marking ten years from the release of former Vice President Al Gore's landmark documentary, *An Inconvenient Truth* (which is largely credited with reinvigorating public discourse about climate change in 21st century). Finally, selected media must be categorized by either publishers or retailers as targeting a third grade to fifth grade audience (readers roughly between the ages of eight and twelve). Of course, such categories are rather fluid, since children's reading levels don't always reflect age-related expectations. However, the line must be drawn somewhere, and so I have followed these guidelines in selecting media suggested for the use of children between the third and fifth grade.

While I will be identifying the overall framing landscape of children's cli-fi media, I will pay special attention to a few case studies within that larger body of media. These case studies are those that I feel most clearly demonstrate the framing types seen throughout the larger body of children's cli-fi media. Each of these case studies has been selected from one of the three largest publishers of children's cli-fi literature (Penguin Random House, Scholastic, and Harper-Collins) or from two of the leading independent publishers of children's environmental literature.

Table 9: Selected Green Writers Press Cli-Fi

Author, Title, Year Published	Problem Explained	Causal Diagnosis	Moral Judgment	Solution Proposed	Youth Responsibility
Bruno, A.B.K. *Josie and the Fourth Grade Bike Brigade* (2014)	Yes (explanation)	Yes	Low	Yes	High
Bruno, A.B.K. *Josie Meets a Jaguar* (2017)	Yes (explanation)	Yes	Low	Yes	High
Bruno, A.B.K. *Josie and the Trouble with Trash* (2017)	Yes (explanation)	Yes	Low	Yes	High
Green Writer's Press TOTALS	• **100% yes**	• **100% yes**	• **100% low**	• **100% yes**	• **100% high**

Table 10: Selected Orca Books Cli-FI

Author, Title, Year Published	Problem Explained	Causal Diagnosis	Moral Judgment	Solution Proposed	Youth Responsibility
Brouwer, Sigmund. Justine McKeen: Queen of Green (2011)	Identified	No	Low	Yes	High
Brouwer, Sigmund. Justine McKeen: Walk the Talk (2012)	Identified	Yes	Low	Yes	High
Brouwer, Sigmund. Justine McKeen: Eat Your Beets (2013)	Identified	No	Low	Yes	High
Brouwer, Sigmund. Justine McKeen: Eat Your Beets (2013)	Identified	Yes	Low	Yes	High
Brouwer, Sigmund. Justine McKeen vs. the Queen of Mean (2014)	Identified	No	Low	Yes	High
Brouwer, Sigmund. *Justine McKeen: Thermostat Chat* (2017)	Identified	Yes	Low	Yes	High
Cassidy, Sara. Slick (2010)	Identified	Yes	Moderate	Yes	High
Cassidy, Sara. *Windfall* (2011)	Identified	Yes	Moderate	Allusion	High
Stevenson, Robin. *The Summer We Saved the Bees* (2015)	Identified	Yes	High	Yes	Moderate
Orca Books TOTALS	• 100% identified	• 67% yes • 33% no	• 67% low • 22% moderate • 11% high	• 89% yes • 11% allusion	• 89% high • 11% moderate

Table 11: Selected HarperCollins Cli-Fi

Author, Title, Year Published	Problem Explained	Causal Diagnosis	Moral Judgment	Solution Proposed	Youth Responsibility
Gutman, Dan. *Baseball Adventures:* "Roberto & Me" (2010)	Yes (explanation)	Yes	High	Yes	High
Hunter, Erin. *Seekers:* "Melting Sea" (2012)	Allusion only	No	No	No	Low
Hobbs, Will. *Never Say Die* (2013)	Yes (explanation)	Allusion only	Low	Yes	Low
Kirby, Matthew. *The Arctic Code* (2015)	Allusion only	Allusion only	No	No	Low
Snell, Gordon. *Battle of the Ice Queen, The* (2014)	Problem identified	Yes	Moderate	Allusion only	None
Waters, Skye. *Starlight Snowdogs:* "Arctic Adventure" (2011)	Problem identified	Allusion only	No	Allusion only	Low
HarperCollins TOTALS	• 33% explained • 33% identified • 33% allusion	• 50% allusion • 33% identified • 20% None	• 50% no • 17% moderate • 17% high • 17% Low	• 33% Yes • 33% No • 33% Low	• 67% low • 17% high • 17% none

Table 12: Selected Penguin Random House Cli-Fi

Author, Title, Year Published	Problem Explained	Causal Diagnosis	Moral Judgment	Solution Proposed	Youth Responsib ility
Corwin, Jeff. *Junior Explorer:* "Great Alaska Adventure, The" (2010)	Yes (explained)	No	None	No	None
Eaton, Michael III. *Flying Beaver Brothers:* "The Evil Penguin Plot" (2012)	Allusion only	Allusion only	Low	No	None
Eaton, Maxwell III. *Flying Beaver Brothers:* "Birds vs. Bunnies" (2013)	Allusion only	Allusion only	Moderate	No	None
Eaton, Maxwell III. *Flying Beaver Brothers:* "The Hot Air Baboons" (2014)	Allusion only	Allusion only	Moderate	No	None
Hughes, Mark Peter. *A Crack in the Sky* (2010)	Yes (explained)	Allusion only	High	No	Moderate
Patrice, Racine. *Cosmo the Dodo:* "Climate Masters" (2011)	Allusion only	Allusion only	Moderate	Allusion only	None
Patrice, Racine. *Cosmo the Dodo:* "Chain Reaction" (2011)	Allusion only	Allusion only	Moderate	Allusion only	None
Stead, Rebecca. *First Light* (2007)	Alllusion only	No	None	No	None
St. John, Lauren. *Elephant's Tale* (2010)	Yes (brief explanation)	Yes	None	No	None
Taylor, Jacqui. *Queen of Green: A Collection of Cautionary Tales from Africa* (2010)	Yes (explained)	No	None	No	Low
Williams Kline, Lisa. *Write Before Your Eyes* (2008)	Yes (explained)	No	None	No	Low
Penguin Random House TOTALS	• 55% allusion • 45% some explanatio n	• 55% allusion • 36% none • 9% yes	• 45% none • 36% moderat e • 9% low • 9% high	• 82% no propose d solution • 18% allusion	• 72% none • 18% low • 9% moderat e

Table 13: Selected Scholastic Cli-Fi

Author, Title, Year Published	Problem Explained	Causal Diagnosis	Moral Judgment	Solution Proposed	Youth Responsibility
Cole, Joanna. *The Magic School Bus:* "Climate Change" (2010)	Yes (explanation)	Yes	Low	Yes	High
McGhee, Alison. *Julia Gillian and the Art of Knowing* (2008)	No	No	None	No	None
Meadows, Daisy. *Earth Fairies:* "Carrie the Snow Cap Fairy" (2009)	Yes (brief explanation)	No	Low	No	Low
Meadows, Daisy. *Earth Fairies:* "Coral the Reef Fairy" (2009)	Allusion only	No	None	No	None
Meadows, Daisy. *Earth Fairies:* "Isabella the Air Fairy" (2009)	Allusion only	No	None	No	None
Strasser, Todd. *Tardy Boys:* "Is That an Angry Penguin in Your Gym Bag?" (2008)	Yes (brief explanation)	Yes	Moderate	Yes (drive less)	Moderate
Scholastic TOTALS	• 50% some explanation • 33% allusion • 17% No explanation	• 67% no causal diagnosis • 33% cause identified	• 50% no moral judgment • 33% low moral judgment • 17% moderate	• 67% no proposed solution • 33% solution proposed	• 50% no youth responsibility for solutions • 17% low • 17% moderate • 17% high

Table 14: All Cli-Fi Publisher Patterns

HIGHEST PERCENTAGES FROM EACH PUBLISHER					
PUBLISHER	Problem Explained	Causal Diagnosis	Moral Judgment	Solution Proposed	Youth Responsibility
Green Writer's Press	100% some explanation of problem	100% diagnosed causes	100% low moral judgment of actors involved	100% proposed solutions	100% high youth responsibility/ involvement
Orca Books	100% identified problem	67% diagnosed causes	67% low moral judgment of actors involved	89% proposed solutions	89% high youth responsibility/ involvement
HarperCollins	33% some explanation 33% identified problem 33% allusion to problem	50% allusion to causes	50% no moral judgment identified	33% proposed solutions 33% allusions only 33% no solutions proposed	67% low youth responsibility/ involvement
Penguin Random House	55% allusion to problem	55% allusion to causes	45% no moral judgment identified	82% no solutions proposed	72% no youth responsibility/ involvement
Scholastic	50% some explanation of problem	67% no cause identified	50% no moral judgment identified	67% no solutions proposed	50% no youth responsibility/ involvement

Appendix O: Xiuhtezcatl Martinez, Speech on Supreme Court Steps

…and the future that we are determining by our actions in the world…today. So to be one of these 21 youth has been an incredible honor. Um…for me to be able to carry this story with me on my travels across the country and all over the world, I think the evidence is, is incredibly clear that…we are running out of time, really quickly. That the state of the planet is unraveling all around us because of our addiction to fossil fuels. #00:00:26.60#

That…for the last, several decades, we have been neglecting the fact that this is the only planet that we have, and that the main stakeholders in this issue are the younger generation ("yes!"), that not only are the youth going to be inheriting every problem in the world today, after our politicians are long gone, but that our voices have been neglected from the conversation. We have not been included that are so important…where our politicians are no longer representing our voices. Where people make decisions to approve fossil fuel permits, to approve pipelines like the Dakota access pipeline, the Keystone XL pipeline…that is a direct attack on the future that our generation is going to be left with…that future generations are going to be left with. #00:01:13.42#

And in a situation, and a democracy where our government no longer represents our voices, it is THE responsibility of the constituents of the individuals of this nation, of the public, to stand up and fight and demand that our rights be upheld by those in office. ("woo! yes!" whistling.) #00:01:31.13#

So that is what this lawsuit is about. That's what this movement is about. It is founded on love, and it is founded on justice. Where for us, every decision that we make is a vote for or against our future. Will we fight to defend that which we love? It's about protecting the future of these children, of these youth…for all your children, for every young person in this country, for

every person living in this world, that is what we are fighting to defend, that is what we are fighting to protect, that is why we are marching in the streets, like the science march, like the people's climate march, like the women's march… That is why we chain ourselves to the pipelines… in…movements like Standing Rock…that's why we RESIST these projects that threaten our future this is a movement based and founded upon love, and justice, that we are demanding that be upheld for future generations #00:02:18.02#

We do this in our streets and we do this in our courts and if you look back through history, some of the greatest changes that have been…brought forth in the world and in this nation have come from people. If you look at some of the most powerful decisions that…have been made by politicians, it is because people pushed them to do so. #00:02:34.61#

Where this is the most diverse generation, this is the most progressive generation in history, and when we can all vote, we will be the biggest young voting generation that there has been. We're going to elect politicians that represent our voices and our futures, but for NOW, we are not going to wait until someone in office is representing our voices, because we need the action to come today, because the threat upon our future is happening right now. #00:03:04.50#

When we stand in our courts with our stories, with science, and with…our legal system behind us, championing for change, when we are here that our constitutional inalienable rights of life, liberty, property, and the pursuit of happiness are upheld. Because for the last several decades to today, they have been infringed upon by our government. Every action that Trump takes to dismantle different laws that protect our environment and protect our climate, every time that he rolls back laws to mitigate fossil fuel extraction, that is evidence in our lawsuit that our government is failing to represent us. #00:03:37.25#

So we stand united, we stand in a time when the world critically needs a VOICE, that is championing for the voices that are unheard, the marginalized people across the nation, that are facing the impacts of climate change immediately, that are seeing the effects of sea level rise, that are seeing the effects of of of wild fires and droughts impact their communities…well, we are that voice as the younger generation, that stands in our streets, and now in our courts, to demand for justice for our generation and for every generation to follow we can NOT wait any longer, because this issue is upon us, and this movement…is about defending THIS generation, and our rights. #00:04:15.10#

So we're incredibly excited to be here today…we're incredibly excited for this weekend, we are incredibly optimistic about our future. We believe in the power of the people, we believe in the power of the younger generation to lead this movement. And when young people are at the forefront, demanding that our futures be took into consideration, when we are fighting in not allowing the bureaucracy of the older generation slow us down, nothing is going to be able to stop us in this journey to create change in this country for every generation to follow when we are writing the legacy that we know we deserve to pass on to the next generation. Thank you (cheers).

#00:13:28.12#: Although I took the transcription of Xiu's speech from a video, I ran out of space on my phone shortly after. However, I did have the handy recorder that Chris gave me, and the rest of the speeches were recorded there. I'll pick it up right after Xiu's speech with Kelsey acting as the moderator of the speakers.#00:13:28.12#

Appendix P: Transcript of Xiuhtezcatl's UN Speech (June 2015)

https://www.youtube.com/watch?v=qeXLuywliFI&list=PLcZEO1pI0uKsppYvzB_H8C6qsnzZW-BcuL&index=13

SPEAKER: We shall now hear a statement by [can't pronounce name] Martinez, a representative of the people's civil society.

XIU: Begins with a quote in native language.

Good morning everybody. My name is Xiu . . . I'm very, very honored to be here today. I think it's amazing to look around the world and see almost 200 countries represented here today, because it's really going to take united action from all of us in order to make a difference. I'm 15 years old, and I'm the youth director of an organization called the Earth Guardians, and I'm working with young people around the planet to protect our Earth, our air, our water, and our atmosphere for my generation and those to follow.

I stand before you today representing my entire generation. As well as generations unborn. I stand before you representing the indigenous peoples of this earth, and those who will inherit the effects of the climate crisis that we face today as a global community. My father raised me in the Mishika (spelling? Tribe?) tradition. I learned from my father that all life is sacred. He showed me that every living thing is connected, because we all draw life from the same earth and we all drink from the same waters. I was raised in the ceremonies of my people, learning the dances, the songs, and the language that was passed on to me by my people, by my ancestors, and what I learned from my cultural heritage is that this life is a gift and it is our responsibility to respect and protect that which gives us life.

So I began to look at the world around me, and began to learn about the issues that we are facing, and I saw that we were facing a crisis that was beginning to affect every living system on our planet. I saw that climate change was going to be a defining issue of our time. Seeing this world, seeing MY world collapsing around me pushed me into action. So for the last 9 years, since I was 6 years old, I've been on the front lines of climate and environmental movements. Standing up to fight for my future and for our planet.

What a lot of people fail to see, or simply ignore, is that climate change isn't an issue that is far off in the future. It isn't soley affecting the ice caps in the poles, or the sea levels in our oceans. It's affecting us right here, right now, and will only continue to get worse. In a 3 month period, my family and I witnessed the greatest wildfires and the worst floods we've ever seen in Colorado history. Frequency and severity of massive storms and massive floods, and massive superstorms are increasing all over the planet because of our lack of action, and because of the increase in carbon dioxide emissions, because of the way that we are living. And because of this, young people are standing up all over the planet, because we see that climate change is a human rights issue. It is affecting especially developing countries, women, children, and people of color more than everything else. We have to realize that what is at stake is no longer just the planet, no longer just the environment, but what's at stake right now is the existence of my generation…what is at stake right now, what we are fighting to protect, what is in your hands, what is in our hands today, is the survival of this generation and the continuation of the human race. That is what is at stake.

So youth are standing up all over the planet to find solutions to the issues that will be left to my generation. Earth Guardian crews are starting up all over the planet, and youth are using their passions to address some of the greatest issues of our time, by planting seeds of so-

lutions that can change the world. Over 400,000 people march through the streets of New York City in the greatest climate march in the history of the world. More than 220 institutions have divested from fossil fuels with the help of student-led movements and that number continues to grow. Youth like myself across United States are suing our state and federal governments, demanding them to take action on climate change immediately. We are flooding the streets, and we are now flooding the courts, to show the world that there is a movement on the rise, and that our generation is at the front of that movement, fighting for the solutions that we need, and we need you to help us.

We are approaching 21 years of united nations climate talks, and in the last 20 years of negotiations, almost no agreements have been made on a bonding climate recovery plan. Our window of opportunity to take action is shrinking as the problem exponentially increases. We NEED you to take action at COP21 before it's too late, because as I said, what's at stake right now is the future of your children our children my children our grandchildren. When we look into our eyes, we see the next generation, and we see that that is the planet that we are leaving to them. We look at the world, and we see the planet that we will leave to our generation.

So don't be afraid to dream big, because not only is it possible to get off of fossil fuels, but it is already happening. Cities and countries around the planet are committing to go 100% in the first half of the century. The pope himself called for a shift from fossil fuels to renewable energy. The solutions are here, and with them are coming millions of jobs and economic opportunities. Imagine if we took all of the money that we are pouring into the fossil fuel industry and the nuclear industry and put that into renewals, imagine what we could accomplish. Phasing out fossil fuels is a dream that is slowly becoming a reality. And the question is, will it happen fast

enough to avoid further climate catastrophe. It's time to look to the skies, for the solutions that

we need. Because the future of energy is no longer down a hole.

We need to reconnect with the earth and end this mindset that we can take whatever we

want without ever giving back or understanding the harm that we are doing to the planet. It's

this mindset of destruction, of greed, that is tearing apart our planet. We need to change the

fundamental beliefs of our entire society. We have to remember that we are all indigenous to this

earth, and that we are all connected.

Every generation leaves a mark on this planet. We leave something behind to be re-

membered by, and we are at a tipping point RIGHT NOW, where we will either be remembered

as the generation that destroyed the planet, as a generation that put profits before future, or as

a generation united to address the greatest issue of our time, by changing our relationship with

the earth. We are being called upon to use our courage, our innovation, our creativity, and our

passion to bring forth a new world. So in the light of this collapsing world that we see, what bet-

ter time to be born than now, because this generation, the people in this room right here, we

get to change the course of history. Humans have created the greatest crisis that we see on the

planet, and the greater the challenge, the higher we will rise to overcome it. We need you to

stand with us. Never before has there been such a unifying issue as climate change, and it is time

now to set aside everything that divides us. Everything that separates us. Everything that makes

us want to point a finger at someone else and throw the problem to them. Who will stand with

me now? For mine and future generations to inherit a healthy, just, and sustainable planet. Who

will stand with me now? The hope of this planet, of this generation, is in our hands. I don't want

you to stand up FOR us, I want you to stand up WITH us. Because together we can change this

world. And it's not going to be easy, but it is our responsibility. We OWE it to future generations

to be the leaders today so that they can have a tomorrow. Thank you.

Tepid applause.

Figure 1: People's Climate March "Balloon" Poster

Figure 2: Jean James's "Winds of Change" Poster

Figure 3: Chip Thomas's "Protect Our Future" Poster

Figure 4: Shepard (Huey) Fairey's "Protect the Sacred" Poster

Figure 5: Josh MacPhee's "Climate Wars" Poster

Figure 6: People's Climate Mobilization's "Defend Our Mother" Poster

Figure 7: "Protecting Our Mother" Poster

Figure 8: People's Climate Movement "Clean Air" Poster

Figure 9: Greenpeace's "Lego Block Shell" Commercial (Still Frame)

Figure 10: Lego Shell Oil Rig Play Set

Figure 11: Greenpeace's "Santa" Commercial (Still Frame)

Figure 12: Greenpeace's <u>SaveSantasHome.org</u> Website (Screenshots)

Figure 13: Shell's "Let's Go" Print Advertisement

Figure 14: Greenpeace's "Let's Go" Parody

Figure 15: Chevron's "Fuel the Future" Commercial (Still Frame)

Figure 16: OnGov Commercial (Still Frame)

Figure 17: COP15 Commercial (Still Frame, 1 of 3)

Figure 18: COP15 Commercial (Still Frame, 2 of 3)

Figure 19: COP15 Commercial (Still Frame, 3 of 3)

Figure 20: Clinton Memes (1 of 3)

Figure 21: Clinton Memes (2 of 3)

Figure 22: Clinton Memes (3 of 3)

Figure 23: Avery McRae: Cute Kid of Nature (1 of 5)

Figure 24: Avery McRae: Cute Kid of Nature (2 of 5)

Figure 25: Avery McRae: Cute Kid of Nature (3 of 5)

Figure 26: Avery McRae: Cute Kid of Nature (4 of 5)

Figure 27: Avery McRae: Cute Kid of Nature (5 of 5)

Figure 28: Avery McRae: A Force to Be Reckoned With (1 of 3)

Figure 29: Avery McRae: A Force to Be Reckoned With(2 of 3)

Figure 30: Avery McRae: A Force to Be Reckoned With (3 of 3)

Figure 31: Posted Photos of Youth Supporting Itzcu's Silence Strike (1 of 5)

Figure 32: Posted Photos of Youth Supporting Itzcu's Silence Strike (2 of 5)

Figure 33: Posted Photos of Youth Supporting Itzcu's Silence Strike (3 of 5)

Figure 34: Posted Photos of Youth Supporting Itzcu's Silence Strike (4 of 5)

Figure 35: Posted Photos of Youth Supporting Itzcu's Silence Strike (5 of 5)

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