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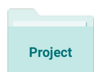

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Entertaining our way to engagement? Climate change films and sustainable development values

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Abstract: How we communicate about climate change shapes our response to the most complex and challenging issue society currently faces. In this paper, we conduct a discursive analysis and ideological critique of stereotypical representations in three climate change films: *The Day After Tomorrow* (2004), *Sizzle: A Global Warming Comedy* (2008) and *An Inconvenient Truth* (2006). We argue that these films situate their treatment of climate change in a narrative context that reiterates troubling stereotypes about race/ethnicity, gender, and sexuality. These representations do not align with key sustainable development goals such as equity, freedom, and shared responsibility. Our essay demonstrates how the stories we consume about climate change as we entertain ourselves potentially influence our sense of the world, guide our relationships to one another and impact our collective abilities to create a sustainable future.

Keywords: climate change communication; discourse analysis; ideological criticism; film; stereotyping; sustainable development.

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1 Introduction

In the blockbuster film, *The Day After Tomorrow* (TDAT) (Emmerich, 2004), white male lead character Sam Hall (Jake Gyllenhall) confronts an African American police officer directing people into a cataclysmic storm. The son of climatologist Jack Hall (Dennis

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Quaid), Sam invokes his father's scientific authority to tell the police officer that the people should remain inside. Ignoring Sam's warning, the officer guides the group outside to join the migration south. Later in the film, the police officer tries to awaken people who joined him only to find that they are frozen in the snow. The apex of the officer's folly is revealed when we see his reflective police officer vest on his dead body. For the police officer and those who followed him, contradicting white male authority resulted in tragedy. Far from exceptional, the narrative framework in TDAT that privileges white males as authority figures and depicts men of colour as less empowered have become part and parcel of mainstream US media culture (Benshoff and Griffin, 2011). If these representations were to appear in a single film on climate change, there would be cause for concern. However, when they form a pattern across multiple films from different genres – from narrative, mock-documentary and documentary – as we have discovered, we must turn our critical attention to them to consider how they might impact our engagement as citizens.

Communication about climate change occurs in a complex web in which citizenship, culture, identity, economics, and politics intersect; understanding how people are mobilised to action (or not) requires that we investigate these relationships. Film, as a form of communication, is important to study because how we communicate about environmental issues shapes our perception of them and our ability and desire to take action (Cox, 2009; Hansen, 2010). A growing body of research explores climate change and media framing and cultivation in newspaper and television (Antilla, 2005; Boykoff, 2007; Boykoff and Boykoff, 2004; Carvalho and Burgess, 2005; Feldman et al., 2011).Yet film, which similarly contributes to the construction of how we view ourselves and come to act as citizens (Benshoff and Griffin, 2011; Hansen, 2010), has received relatively little attention as a source of climate change communication compared to other media.

Recognising the importance of film and this gap in the literature, our study focuses on three films from different genres that address climate change: TDAT (2004), *Sizzle: A Global Warming Comedy* (Olson, 2008), and *An Inconvenient Truth* (AIT) (Guggeheim, 2006). Rather than focusing on impact, our analysis centres on the texts themselves to illustrate an important discursive pattern that has emerged across genres. We investigate how representations of race/ethnicity privilege white male authority and decision making (Dyer, 2003; Nakayama and Krizek, 1995). Consistently, white males appear as authority figures, while stereotypical representations of men of colour depict them as less empowered and as such, these films contradict core sustainable development values even though they explicitly aim to promote an active response to addressing climate change.

The United Nations Millennium Declaration specifies that core sustainable development values include freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility (Kates et al., 2005; Leiserowitz et al., 2006; *United Nations Millenium Declaration*, 2000). Drawing on these values as central criteria, our critical analysis of TDAT, *Sizzle*, and AIT highlights problematic representations of race/ethnicity. Further, we investigate the implications of film production choices on citizen engagement in climate change and, specifically, how these films promote or hinder core sustainable development values. We use these as central criteria to consider the films in the context of the following research questions: To what extent do the films promote equality between characters? How do they characterise shared responsibility in efforts to address climate change? Are relationships based on solidarity, tolerance and respect for diversity? We argue that by undermining key sustainable development values,

these films may limit the transformative potential of citizenship models aimed at promoting sustainability. Ultimately, this essay seeks to contribute to a deeper understanding of how the stories we consume as part of entertainment culture help constitute our sense of the world, guide our relationships to one another, and influence our ability to make decisions and act in response to climate change.

Scholars have taken a range of approaches to the study of climate change media, using both empirical and critical methods. Our study synthesises across this literature to produce a deeper understanding of how films on climate change open up and shut down opportunities for engaging people as active citizens. We identify three central implications for how representations help produce sustainable societies in which all members can engage. First, films help audiences construct meaning as expressed through measures like levels of concern about risks (Balmford et al., 2004; Howell, 2011; Leiserowitz, 2004; Lowe et al., 2006); perceived efficacy in the face of uncertainty (Beattie et al., 2011; Howell, 2011); and active information seeking (Hart and Leiserowitz, 2009). Second, these constructions occur in complex systems of production and negotiation guided by broader interactions within a political economy (Brulle, 2010; Olausson, 2011). Third, representations create a *discursive space* (Mellor, 2009) in which audiences seek information, have concerns, and potentially act in ways that collectively result in sustainable development (Rosteck and Frentz, 2009; Salvador and Norton, 2011). We provide a brief overview of this literature and consider how TDAT, *Sizzle* and AIT invite or delimit participation in response to climate change.

1.1 Media effects: climate change and audience reception

A significant corpus of media effects research examines how framing and cultivation influence audience reception to climate change films (Balmford et al., 2004; Beattie et al., 2011; Hart and Leiserowitz, 2009; Leiserowitz, 2004; Lowe et al., 2006) which helps us understand gaps in critical scholarly engagement. In one study of TDAT, researchers found a positive correlation between increases in newspaper coverage of climate change following the release of the film and information seeking behaviour on related websites (Hart and Leiserowitz, 2009). In a similar vein, TDAT audiences demonstrated an increase in perceptions of risks (Leiserowitz, 2004) and levels of concern (Balmford et al., 2004), and motivation to act (Lowe et al., 2006). These studies clarify how TDAT influences understanding, perception, and sense of possible actions, especially in terms of films' ability to increase levels of concern (Balmford et al., 2004; Hart and Leiserowitz, 2009; Howell, 2011; Leiserowitz, 2004). However, differences in audience composition and the persistence of effects (Howell, 2011) and accurate scientific knowledge of impacts (Balmford et al., 2004) demonstrate that reception of these media occurs within a complex cultural environment (Benshoff and Griffin, 2011; Kellner, 1995; Miller, 2007). Where researchers in one study describe an increase in concern and intended behaviour change (Lowe et al., 2006), in another there is a reduction in public understanding of climate change related predictions, favouring more extreme scenarios of change (Balmford et al., 2004). Audiences in *The Age of Stupid* (Armstrong, 2009) demonstrated initial concern after viewing, but effects did not hold beyond four months (Howell, 2011). We do not necessarily take these findings as contradictory. Instead, we offer them to demonstrate the embedded complexity in citizen engagement with climate change, a complexity that critical studies perspectives can help explicate.

1.2 Consuming representations, constructing culture

Empirical studies represent one lens of a tri-fold perspective, including audience reception, political economy, and the production of cultural texts (Kellner, 1995). Benshoff and Griffin (2011) characterise cultural studies as a field of communication that focuses on the production of ideological concepts like freedom, citizenship, masculinity and femininity, and sexuality through texts. They argue that US films in particular are permeated with white, patriarchal, capitalist representations that contribute to dominant ideologies (Benshoff and Griffin, 2011). Others have argued that race is produced through representation (Dyer, 2003) and *strategic whiteness* emphasises the need to attend to constructions that normalise white privilege (Nakayama and Krizek, 1995). Whiteness, blackness, and other racial constructs "successfully strategize maintenance of privileged power and concomitant marginalization and disempowerment of highly visible 'others'" [DeLuca, (1999), p.171]. Thus, representations matter not because of what they are, but because of what they are used to do (DeLuca, 1999).

Consumption of climate change narratives helps shape our sense of belonging, where knowledge of self and other infuse our participation as citizens. Climate change stories feed the production of culture in which we respond as citizens (Stevenson, 2011). If we do not attend to these constructions, we cannot intervene to identify problematic representations that restrict the realisation of sustainable development goals, which are inextricably tied to culture through "narratively contested accounts" that emerge at sites of tension and struggle [Benhabib, (2002), p.viii]. Thus, we focus on how films *participate* in the construction of culture and move away from representations as fixed systems.

Sustainable development requires critique of cultural texts, as critique is a "vital part of the conscious evolution of sustainable development" [Kates et al., (2005), p.20]. Cultural texts are embedded within and constitutive of the local to global efforts to imagine a different future. Because they address one of the most pressing sustainability issues of our time, climate change films provide a crucial site of analysis.

2 Methodology

Our analysis uses ideological criticism and discourse analysis to understand how power, citizenship, identity, and communication intersect. We understand discourse as the "practices that systematically form the objects of which they speak", that is, as signs that constitute our very experience of the world [Foucault, (1972), p.49]. Ideology refers to a process through which socially constructed language and culture are rendered 'normal'. Viewing films as ideological markers, sites of tension, and constitutive of identity requires that we link films to their production and consumption contexts. This framework assumes that media texts exist in relationship to other media texts and broader societal discourse through *intertextual* relationships (Bell-Jordan, 2008; Fiske, 1987; Rosteck and Frentz, 2009). Our approach investigates how "practices and discourse dialectically construct each other, engaging in acts of marking and erasure that constitute culture rather than reveal it" [Mason, (2008), p.108], a framework that seeks to identify the degree to which discourses transgress from or even modulate dominant ideologies.

We look across three films to examine patterns of representation as sites in which symbols link with broader ideologies within a system of power. For example, within

minutes of being introduced to an African American character in *Sizzle*, the audience learns that the character did not receive a higher education. By itself, a lack of education as a construct does not *do* anything; yet when this appears within an ideological context that values education, which is the case in the mainstream US culture, marking characters as black *and* uneducated contributes to a system of power based on unequal agency. The continual linking of these constructs results in reductive stereotypes (Dyer, 1984).

We undertake a close textual examination of each film and our selection of TDAT, *Sizzle*, and AIT is based on an intertextual pattern across genres and at multiple production scales. TDAT and AIT were distributed to mass audiences, while *Sizzle* plays at more restricted venues like film festivals. This approach illustrates how similar discursive formations travel across diverse US films. We do not seek to identify causal relationships in the production of these films and do not argue that all climate change films demonstrate the same pattern of representations. We do maintain that this pattern occurs with enough frequency that it warrants closer analysis.

We analysed each film in its entirety and describe scenes based on specific narrative and other formal elements related to character construction. We analysed extra-textual features, including credits and the films' respective websites. We use the characters' scripted names throughout except when discussing production roles, in which case we use proper names. Our deductive analysis draws from the normative criteria outlined in our introduction: equity, freedom, tolerance, solidarity, respect and responsibility. Other scholars have offered important critical analyses of TDAT (Burg, 2012; Salvador and Norton, 2011) and AIT (Mellor, 2009; Rosteck and Frentz, 2009), and our analysis seeks to complement this work by considering the texts' ideological complexity.

3 Race, ethnicity and frozen hierarchies

TDAT (2004) opens as paleo-climatologist Jack Hall (Dennis Quaid) and fellow climate researchers drill ice cores in the Arctic ice sheet, only to watch a piece of ice the size of Rhode Island cleave off. The film cuts to a meeting room of the UN General Assembly in which Jack presents dire predictions. He is rebutted by the Vice President of the USA, who emphasises the need to protect the economy over the climate. As the narrative advances, crisis descends as the world experiences a 'major climate shift' and cataclysmic global cooling, causing an evacuation into Mexico. Characters' decision making about how to respond advances the narrative.

The lead decision making roles constitute an important site of analysis. All characters with demonstrated decision making authority are white men, including the central research scientists and government officials who make critical decisions related to climate science and policy action. Presumably Latino/Hispanic Gomez (Nestor Serrano), head of the National Ocean and Atmospheric Administration, is the only exception. Yet, he consistently appears within a hierarchy in which he answers to the President, Vice President, and even Jack. His decision making is thus constrained.

When we contrast this pattern with African Americans characters, the difference becomes even starker. Four African American men play supporting roles. Brian Parks is a stereotypical 'nerd', a word Parks uses explicitly in deflected self-reference. He serves on the decathlon team with white teammates Sam and Laura Chapman. Within his first few lines, Laura tells Brian to "Shut up," and then says, "Sam, don't pay attention to him, okay?" Sam, positioned as smarter than his teammates, responds correctly to questions

that Brian gets wrong. This positioning between white and black 'nerds' corresponds to Quail's (2011, p.464) analysis in which she argues, "the black nerd assumes a liminal space, between black and white or Asian, between nerd and cool, and is excluded from most of those spaces." The film reinforces Brian's lack of decision making capacity, while Sam guides the group's actions to successful outcomes and continually saves the other characters. This differential authority repeats across character groups as well. Sam contradicts the second supporting African American man, the unnamed police officer described in the introduction, whose disagreement with Sam's and his father's authority resulted in the death of everyone who listened to him. The relationship between Professor Rapson and the third African American character, his assistant scientist, Simon, is similar. Rapson either legitimates or contradicts Simon's observations. The fourth character, Luther, is a homeless man. Ironically, Luther is the only African American character who offers a solution when he instructs the white, wealthy male member of a competing decathlon team that he should stuff his clothes with torn pages from books to stay warm. As a Hollywood blockbuster film, TDAT reiterates disturbing patterns that we see across mainstream US cinema. The clear positioning that divides power and authority along racial lines invests white characters with greater agency and this pattern reoccurs in the independent mock-documentary *Sizzle*, as we now demonstrate.

4 Who should lead and who should get out of the way?

In the final scene of *Sizzle*, a representative from Papua New Guinea, speaking at a 2007 global summit on climate change in Bali, says to the USA, "We ask for your leadership. We seek your leadership. But, for some reason, if you are not willing to lead, please get out of the way." While this call may be for broader global leadership, as we show, *Sizzle* produces inequitable patterns in leadership that undermine shared responsibility.

Directed by former marine biologist turned filmmaker, *Sizzle* cast includes Randy Olson (playing himself), Brian (Brian Clark), Mitch (Mitch Silpa), Antwon (Ifeanyi Njoku), Marion Jenkins (Alex Thomas) and Muffy Moose Olson (Randy's mother) as central characters. *Sizzle* represents a mix of two genres, mockumentary and documentary, loosely divided between a pre-production narrative and subsequent interviews with 'scientists' and 'skeptics'. During the pre-production narrative, the characters make arrangements for filming and production choices, and the format aligns primarily with mockumentary style. When cast members interview scientists and skeptics, the film shifts to documentary style, but the distinction between the two genres is never made explicit.

In early scenes, the film constructs different roles for white and black men. The three white men, Randy, Brian, and Mitch, want to hire Marion as cameraman and Antwon as sound technician, both of whom are African American. Randy asks if Marion went to the University of Southern California's School of Cinematic Arts, and Brian replies that he thinks Marion grew up near there, a characterisation that positions Marion as uneducated. This juxtaposes him to Randy, who has already described himself as 'Dr. Randy Olson', with a degree from Harvard. Randy is highly educated, punctual, and in charge. Antwon and Marion are uneducated, late, and members of Randy's crew. As Randy points out, Marion has no right to ask questions or have an opinion because he is uneducated. The film creates a hierarchy of legitimated knowledge by aligning education with race/ethnicity.

Marion's character is reduced to a typology when he and Antwon drive onto the scene in a silver Hummer playing loud rap music. Randy's first line to them, "Guys, you are 20 minutes late", is followed by "Do you know what a call time is?" Marion responds, "I know what a call-girl is." The scene fixes them as recognisable tropes of black masculinity (Bell-Jordan, 2008). The Hummer is a particularly striking example of an iconographic marker, articulating a link between African Americans, gangster/drug culture, and US consumerism (Schulz, 2006). Describing this construction of black masculinity on reality television, a hybrid genre akin to mockumentary (Mast, 2008), Bell-Jordan (2008, p.360) emphasises that African American cast members' *difference* "reinforces reductive thinking about African Americans as either 'hood' or 'integrated'…, and this leaves little room for more diverse and complex representations." Like *The Real World*, Marion and Antwon are linked with the hood through their language, affect, clothing, vehicle, and drug use. The film reinforces scripted patterns of character development, clearly linking race and crime (Bernstein, 2003) and reinforcing stereotypes of the black male criminal (White and Cones, 1999).

The consideration of fictionalised and non-fictional production roles extends our analysis of equity, freedom, and shared responsibility. Aligning with these core values in sustainable development, Miller (2007, p.23) notes that the "freedom to participate in culture is contingent on both freedom from prohibition *and* freedom to act via political, economic, and media capacities." Representations in *Sizzle* construct freedom and shared responsibility to participate in decision making. Randy functions as director with sole authority to make decisions about 'his crew', using variations of this possessive phrase at least five times. He serves as the only non-diegetic narrator until the final scene. Yet, an examination of the credits reveals that Njoku (Antwon) was a co-writer with Randy and a co-producer. Without reading the credits, the audience has no way of knowing Njoku's contribution to the film's production. The contrast between the assumed and actual production roles illustrates how the film privileges knowledge and power along lines of race/ethnicity. As others have shown, "The struggle for equal representation on America's movie screens will continue to parallel the struggle for equal representation in the boardrooms, studio lots, and creative guilds of Hollywood" [Benshoff and Griffen, (2011), p.100]. The scriptural arrangement that positions the leading character and diegetic narrator as a white, educated, politically, and economically powerful man is set within an ideological system that produces and reproduces this particular arrangement.

The contrast between Antwon's constructed role and his actual contribution to the writing and production highlights important production choices. Why do Randy, Brian, and Mitch play themselves as directors and producers, yet Antwon and Marion play characters in subservient roles to the white men? The juxtaposition of the obvious tropes of African American black masculinity and the positioning between white and black characters makes the use of stereotypes even more apparent and problematic in light of democratic ideals. Drawing on Stuart Hall's notion of 'fictional rehearsal', de Bruin (2011, p.87) points out that, "citizens evaluate characters' behaviour in media texts in relation to what they themselves would do in a similar situation." Narratives that mask the actual production roles produce constrained ideas of what is possible for citizens within a particular culture. In this film, black men are in service and subordinate to white men, even though in production reality they are not, and this has ideological implications.

In *Sizzle* and TDAT, stereotypical representations position African American men as nerds, gangsters, uneducated, and otherwise subservient to white men. Stereotypes like these constrain agency and limit authority (Bell-Jordan, 2008; White and Cones, 1999).

While audiences in TDAT may be able to negotiate and reject these reductive tropes because they engage with the film as a work of fiction (empirical research on the ways audiences accept what they see in TDAT as reality troubles this assumption), the mock-documentary genre of *Sizzle* potentially fragments the critical reflexivity required to reject these reductive tropes (Macleod, 2011). As we turn to AIT, the transition from fiction to non-fiction raises important questions for our engagement with climate change documentaries. Mellor (2009) refers to this positionality as the "the politics of accuracy" in her analysis of this film, calling attention to the embedded representations that are constructs meant to be taken as reality.

5 Mythic figure, essentialised agency

AIT (Guggenheim, 2006) became an unexpected box office hit, winning two Academy Awards (including Best Documentary Feature) and becoming one of the highest grossing documentary films in US history. Because much of the film features Gore as central character, we focus on three key scenes that have critical implications for reading Gore as mythic figure (Rosteck and Frentz, 2009). While the stereotypical representations are striking in the first two films, the layered discourses that construct race/ethnicity in a genre – documentary – meant to be taken as reality enhances the complexity of this analysis (Mellor, 2009). The scenes we describe frame particular ideologies of race/ethnicity through iconic images, narration, and sequence shots. We provide a detailed description of the first sequence to illustrate composite layering and how these elements delineate who is expected to lead and who will feel the effects of climate change.

An important scene occurs around three minutes into the film when Gore says, "I was in politics for a long time. I'm proud of my service." We cut to images of the flood in New Orleans following Hurricane Katrina and a satellite picture of the storm. A voice-over starts, "You gotta be kidding me," and the scene cuts to the side view of Gore's face at a slightly low angle. The voice-over continues, "This is a national disaster," and the image cuts to a close up of Gore's left eye and then his hand above the key board. The voice urges, "Get every doggone Greyhound bus line in the country, and get their [bleep] moving to New Orleans. That's they thinking small, man. And this is a major, major, major deal," as the scene cuts back to a side view of Gore's face. This narrative sequence closes as we hear a fading voice, presumably a reporter, say, "What do you need right now?" Gore's voice intones, "There are good people," and the audience sees news coverage of Hurricane Katrina showing a photograph New Orleans Mayor, C. Ray Nagin, and a caption that links him to the clip we just heard, speaking on the radio. The video on the right side of the screen shows two African Americans receiving supplies at an emergency relief station staffed by a white National Guardsman. We cut to five African American women wading through muddy water guiding a large yellow tub in which one of them sits. As Gore continues, "who are in politics, in both parties, who hold this at arm's length" the scene switches back to Gore's computer as he prepares his presentation by importing a satellite image of a hurricane in Honduras with text that indicates 64 cm of rain fell in 36 hours leaving 1.5 million people homeless. Gore then works with a bar graph showing the number of severe weather related storms. The scene cuts back to his face as he says, "because if they [politicians] acknowledge it and recognise it, then the moral imperative to make big changes is inescapable." A US flag

waves behind Gore's face in profile and Nagin's voice fades back in saying, "And let's fix the biggest damn crisis in the history of this country." We cut to the title, "An Inconvenient Truth," with Gore riding in a car, his face obscured through a reflection in the glass of angular buildings, power lines, and trees. The scene cuts to the auditorium where Gore gives his presentation and we see several shots of audience members staring at Gore as he describes an image of Earth.

We map this early scene in detail because much of the film subsequently focuses on Gore's mythic journey in an intertextual arrangement that includes auto-biography, environmental jeremiad, and science documentary (Rosteck and Frentz, 2009). There are relatively few scenes that show other people besides Gore and the fact that this early scene strategically positions him as someone who can act to solve "the biggest damn crisis in the history of this country," on behalf of those who need saving, namely ethnic minorities, is consistent with the constructions we witness in *Sizzle* and TDAT. The next two scenes we analyse reinforce this positioning. Both are animated sequences, and this stylistic choice makes them stand out as distinct. The first animated sequence, about 11 minutes into the film, features a Simpsons-like young blond girl with a baby voice asking an older white man what we can do to combat global warming. This character becomes answer-man as he tells her that, "our handsomest politicians came up with a cheap and easy way" to solve the problem. This hierarchical positioning places white men and our handsomest politicians at the centre of the solution to the problem, even when they get it wrong. In the second cartoon sequence near the film's end, Gore draws on the analogy of a frog in a pot of water to emphasise that our collective way of thinking needs to change. When a frog is placed in a pot of lukewarm water, as the water temperature rises, the frog will continue to sit there until it is rescued. The audience laughs as a hand places the frog on a chaise lounge. Gore confirms, "It is important to rescue the frog." He compares the frog to our collective nervous system, saying we are capable of just sitting there not responding and not reacting. Who is the frog in this analogy and who will be the hero to rescue it?

While they do not engage the ideological critique we advance here, Rosteck and Frentz (2009) provide a compelling account of the elements that cast Gore as mythic hero, demonstrating, "in and through representation of his personal and mythic quest, a model for our own responses…by the end, to move to protect the environment is to act as Gore has already acted – to be courageous" [Rosteck and Frentz, (2009), p.16]. They describe the concept of sublime nature, in reference to Oravec's work (1996), and emphasise the importance of sublimity in generating collective response to protecting the natural world. Yet, as Stormer (2004) describes in his analysis of Ansel Adams' landscape photography, to share in the experience of nature as sublime requires us to forge a common ground of humanity through a partial abandonment of self. We ask, then, when it is Al Gore who invites our courage to act in response to climate change, what vision of humanity does he advance and what do we abandon to enter into that shared space?

If we look at the intertextual weaving of climate change narratives across genres, we ask how patterns of representation normalise a common space of action. Our analysis of power in the production of climate change reveals the potential complexities of positioning Gore as mythic hero. While Gore's representation as hero may invite action, it also limits a sense of equity, solidarity, and shared responsibility. The sequences we describe show who will feel the effects of this crisis (minorities) and who has power to affect change (politicians); who holds the solution to this problem [handsome politicians,

85% of whom in the 112th US Congress are white men (Manning, 2011)]; and who needs saving (we, the frogs, who must wait for politicians to understand their moral imperative to do something to save us).

AIT concludes with a clarion call for Americans to rise above ourselves and our history. Iconic imagery of the *Founding Fathers*, Abraham Lincoln, and white men escorting a black woman during school desegregation reminds us that *we* can rise above our history. Gore says that there is nothing that unusual about what he is doing; what is unusual is that he had the privilege to be shown the truth as a young man. He describes a window opened for him through which the future was very clear. By not acknowledging that there were simultaneously many *doors* that were also opened to Gore because of his privileged position as white man from a relatively wealthy family in the USA, affording him a stellar education and unusual leadership opportunities, we ignore the ways in which the political economic system needs to change to allow others to answer the call to action. Asking "Are you ready to change the way you live?" the film invites us to go online to climatecrisis.net, buy energy efficient appliances and light bulbs, weatherise houses, buy hybrid vehicles (if we can), write to Congress (and if they do not listen, run for Congress), call radio shows, and write to newspapers.

We are not criticising these suggestions and agree that these steps are important. But these options are situated within the political economy of our current social situation in which 15% of the US population lives in poverty, including 27% of blacks and Hispanics, with poverty rates for both groups on the rise and educational attainment at significantly lower levels than for whites (US Census Bureau, 2010). If a person has no degree beyond a high school diploma, are writing to Congress, buying hybrid vehicles, and conducting research on climatecrisis.net accessible options? Gore in this sense *is* unique for being well above the poverty line and highly educated, in addition to also being male and white. While climate change films are not at the centre of the production of these inequities, they are part of the system that reinforces or critiques these inequities. We maintain that *Sizzle*, TDAT and AIT, while attempting to challenge this system, ultimately reinforce inequity and undermine their very potential to affect change.

6 Constructing better climate change stories

Across these films, we see a consistent pattern that privileges white men as decision makers and leaders. When we accept that communication constitutes our experience of the world, and that media and film in particular are part of this communication, this pushes us to attend to the role of film in supporting or eroding core values of sustainable development such as equity and shared responsibility. It pushes us to gain a better understanding of films' role in generating or closing down opportunities to take up the shared responsibility of creating a sustainable future.

We return to *Sizzle* to demonstrate what we think is a step in the right direction. A central character comments that when it comes to global warming wealth equals health, meaning that the most affluent populations will have the greatest agency to adapt to climate change. The film crew visits New Orleans to document the destruction wrought by Hurricane Katrina. The stories of the victims shed light on the inequalities of resource access and how this exacerbated the disaster (Frumkin et al., 2008). The interviews reveal racial and economic inequality that played a role in the ecological and social devastation and that more generally stands at the centre of mobilities to mitigate and adapt to climate

change (Roberts, 2001). Although the narrative does not deal explicitly with issues of justice and equality associated with sustainable development and climate change, the interviews with victims in the final scenes confirm that, "ecology and equity must be dealt with together," [Roberts, (2001), p.508]. If global warming will differentially affect those whose agency is most constrained what are the consequences of stereotypical representations and how do they reinscribe the power relations and exploitation that render particular communities vulnerable?

Houston's (2008, pp.181–182) discussion of environmental crises, justice, and grassroots strategies to reconstruct place argues that the injustice that arose in the aftermath of Katrina is "one devastating example of how urban vulnerabilities are made as a result of decaying urban infrastructure, declines in public expenditure, social exclusion, and the material effects of neoliberal policies in the production of places." When the representative from Papua New Guinea pleas for the USA to lead on climate change in *Sizzle*, he asks us to recognise our interconnected global system, as does climate scientist Oreskes, when she states, "People need to see what this means for people. People like them." Paradoxically, even though *Sizzle* seeks to expose the human face of global warming, the narrative leading up to these final scenes constructs agency in a way that delimits access to power for those who might need it most.

What would be a better way forward in climate change communication that is sensitive to sustainable development values of equity, freedom, and shared responsibility? In their work on climate change communication, Moser and Dilling (2004) argue the need to develop compelling, positive visions of the future that may become self-fulfilling prophesies. Schweizer et al. (2009, p.268) extend this recommendation to say, "A leading challenge in communicating about climate change with the public is that we do not have many local examples or stories to make the case that global climate change is happening now and affecting our current life and landscape." Drawing on the stories from New Orleans brings a place and face to this crisis and exposes inequities. In one of the final scenes, the crew returns to the production studio to decide how to make their film. Based on this analysis, we suggest they focus on the stories that give a place and face to climate change and build humour and human interest in ways that support the vision of a culture empowered to meet the challenge of climate change. *Sizzle* starts in this direction. Unfortunately, the best start comes after the depiction of egregious stereotypes.

If we know that citizenship and sustainability is linked inextricably to culture, then we must look to culture to understand everyday lives and choices (Miller, 2007). How we entertain ourselves shapes our understanding of the world and our actions within it. TDAT, AIT and *Sizzle* are purportedly films that seek to improve citizen engagement around climate change. Yet they are so entrenched in mainstream ideologies about identity – race/ethnicity, gender, sexuality – they fail to break outside the box of dominant discourse that frames change. With a substantial portion of Americans denying climate change and demonstrating very limited scientific literacy (Mooney and Kirshenbaum, 2009), we can ill afford *any* media that paints so problematic a picture about who can or cannot take action to address climate change, much less films that attempt to educate and engage.

Scientific consensus on climate change is clear (Oreskes, 2004). Attention to this issue in mainstream media is likely to grow stronger as the reality of a changing climate comes home. Ideological criticism of film representations is important because it helps us discover how texts align with or differentiate themselves from dominant discourse. But

ideological criticism is not enough: we need to pair our approach with empirical studies of film and citizenship. This is a significant undertaking, with the particular challenge of trying to separate the impacts of cumulative viewing with singular interactions with specific films. But this kind of analysis is indeed possible (Barker, 2005) and provides a rich area for further investigation of direct significance for the production of stronger citizenship engagement in response to this global challenge.

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