

EMPIRICAL ECOCRITICISM



Studying Environmental Narratives and Their Impact



Alexa Weik von Mossner

THE ECOLOGICAL EMERGENCY SERIES 2023

University of Lausanne

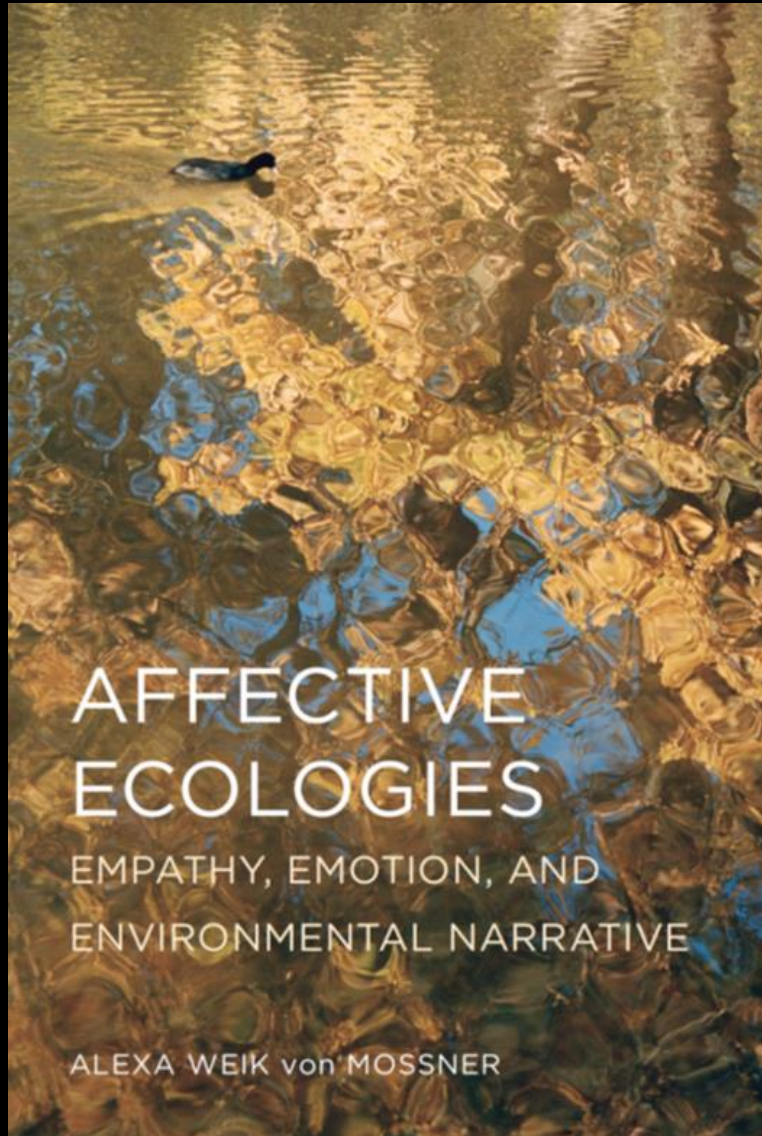


EMPIRICAL ECOCRITICISM

AIMS

Empirical ecocriticism is an emerging subfield of ecocriticism that focuses on the empirically-grounded study of environmental narrative – in literature, film, television, etc. – and its influence on various audiences. The main objective of empirical ecocriticism is to put to empirical test claims made within ecocriticism, and the environmental humanities more generally, about the impact of environmental narratives. To this end, it employs empirical methods used in disciplines such as environmental communication, environmental psychology, and the empirical study of literature. These include correlational and experimental studies, and others.

One the central aims of this interdisciplinary field is to gain a better understanding of the role of environmental narratives in influencing people's awareness, attitudes, and behavior in a time of rapid social and ecological transformation. Combining approaches from the humanities and the social sciences, empirical ecocriticism explores the ways in which people from various cultural backgrounds engage with environmental narratives and the larger repercussions of such engagement.



- Cognitive Econarratology
 - Focus on empathy, affect, and emotion
 - grounded in cognitive psychology
- “I believe ... that the cognitive ecocritical investigation of environmental narratives would greatly profit from empirical studies that are conducted in addition to – and ideally in conjunction with – such theoretical work. Partners for such investigations might be found in the neighboring field of environmental communication, or among psychologists and other social science scholars with an interest in environmental and ecological issues” (2017, 164).

Collaborators




Matthew Schneider-Mayerson
Colby College
Empirical Ecocriticism
Climate Change
Qualitative



Wojciech Małeckie
University of Wrocław
Empirical Ecocriticism
Animal Studies
Quantitative

Workshop



Empirical Ecocriticism

Time 14-15 December 2018

Venue The Rachel Carson Center for Environment and Society, Munich, Germany


Conveners Alexa Weik von Mossner (University of Klagenfurt) and Matthew Schneider-Mayerson (Yale-NUS-College)

Abstract This two-day workshop seeks to establish empirical ecocriticism as a field that investigates the influence of environmental narratives (across a wide variety of media) on their audiences. In our current working definition, empirical ecocriticism is the empirically grounded study of environmental narrative—in literature, film, television, etc.—and its influence on various audiences. One of the central aims of this workshop will develop is to gain a better understanding of the role of environmental narratives in influencing people's awareness, attitudes, and behavior in a time of rapid social and ecological transformation. Combining approaches from the humanities and the social sciences, empirical ecocriticism explores the ways in which people from various cultural backgrounds engage with environmental narratives and the larger repercussions of such engagement.

**rachel
Carson
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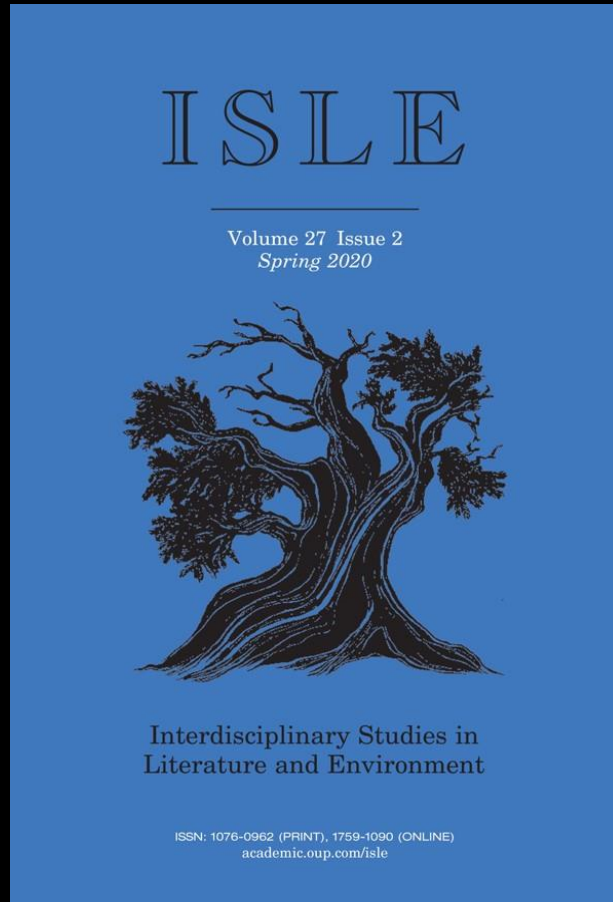
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Special Cluster of articles on “Empirical Ecocriticism” (Spring 2020)



- Schneider-Mayerson, Matthew, Alexa Weik von Mossner, and Wojciech Małecki. “Empirical Ecocriticism: Environmental Texts and Empirical Methods.”
- Schneider-Mayerson, Matthew. “‘Just as in the Book’? The Influence of Literature on Readers’ Awareness of Environmental Justice and Perception of Climate Migrants.”
- Pat Brereton and Victoria Gomez. “Student Audiences and Environmental Literacy: A Study of Celebrity YouTube Media Consumption.”
- Małecki, Wojciech, Alexa Weik von Mossner and Małgorzata Dobrowolska. “Strategic Empathy and Intersectionalism in Alice Walker’s ‘Am I Blue?’”

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Books

Stories to save the world: the new wave of climate fiction

Now more than ever, novelists are facing up to the unthinkable: the climate crisis. Claire Armitstead talks to Margaret Atwood, Amitav Ghosh and more about the new cli-fi



Claire Armitstead

Twitter: @carmitstead

Sat 26 Jun 2021 09.00 BST



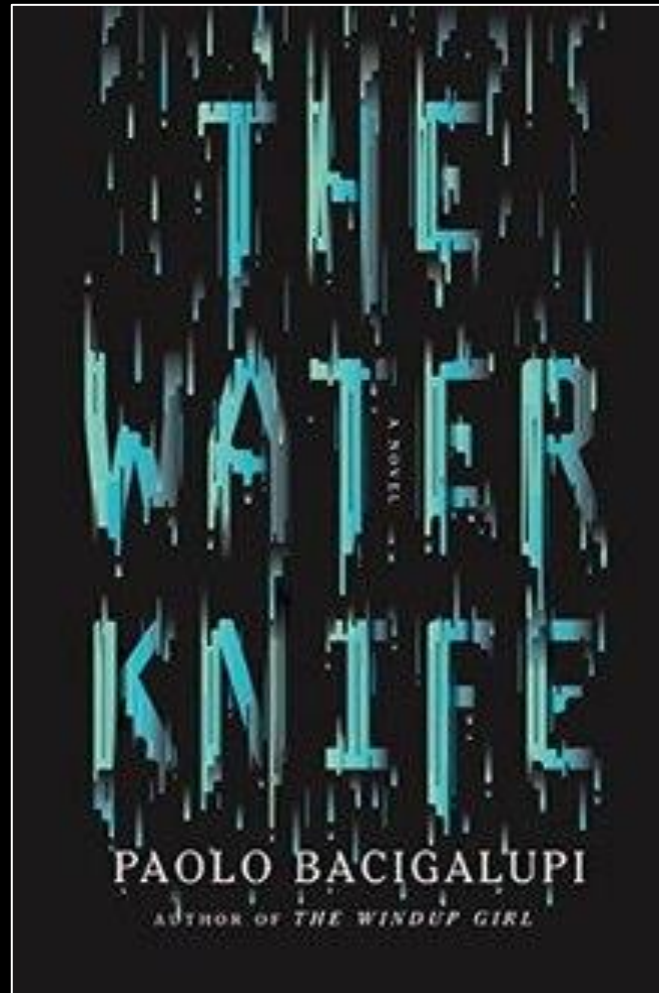
ALEXA WEIK VON MOSSNER

Sensing the Heat:
Weather, Water, and Vulnerabilities in
Paolo Bacigalupi's *The Water Knife*

The future is hot and dusty in Paolo Bacigalupi's dystopian eco-thriller *The Water Knife* (2015). Set in the drought-ridden American Southwest at some point in the twenty-first century, Bacigalupi's speculative novel gives readers a glimpse into what it will mean to live in a climate-changed world that has run out of water. It is a world in which the sun shines indifferently on people's desperate struggles for survival while the southwestern states are entrenched in a brutal fight over the remaining shares of the Colorado River. Always a contested waterway in the region, the Colorado has now become the all-important source of life—without access to the river's steady flows, no farm, no village, and no metropolis in the region can survive. When that access is shut off, the only option left is abandonment: those who can afford it move north or east to places with more favorable climates. Those who are less privileged try to hold out as long as they can, and once they have exhausted their strength and their health, they become migrants, fugitives, outcasts in communities that long ago have lost any sense of solidarity or sociality. Most of the refugees are from the now devastated Texas, but Arizona is not much better off. Phoenix—where most of the action is set—is a dying city that eventually will fall apart just like “Austin, but bigger and badder and more total” (Bacigalupi 24). Bacigalupi hurls his protagonists into this fierce and disintegrating world: one of them a Texas refugee, one of them a journalist doing “collapse pornography” in Phoenix, and one of them a water knife and thus a man who will stop at nothing to ensure that the water is flowing in the right direction.

The Water Knife is not Bacigalupi's first contribution to the emergent genre of climate change fiction—nicknamed *cli-fi* by the journalist Dan Bloom—but it may be the one that is most successful in conjuring future climatic conditions in a way that allows readers to imaginatively experience them.¹ As ecocritic Adeline Johns-Putra has noted, “overwhelmingly, climate change appears in novels as part of a futuristic dystopian and/or post-apocalyptic

¹ Bacigalupi's earlier climate change novels include *The Windup Girl* (2009) and the young adult dystopias *Ship Breaker* (2011) and *The Drowned Cities* (2012). For an ecocritical discussion of *Ship Breaker*, see Weik von Mossner (forthcoming).



MATTHEW SCHNEIDER-MAYERSON

“Just as in the Book”? The Influence
of Literature on Readers’ Awareness
of Climate Injustice and Perception
of Climate Migrants

Increasingly, Americans and people around the world are alarmed about climate change (Goldberg et al.; Fagan and Huang), which is now widely recognized as an anthropogenic and catastrophic process that is already having pervasive negative consequences. Artists and cultural producers, including novelists, have mirrored the general trend of growing awareness and concern. Starting in the 1990s, authors began featuring climate change as a major element of their fictional worlds—first in science and speculative fiction and then, by the 2010s, in nearly every genre of literature (Johns-Putra). Many authors of climate fiction wrote with an activist bent, hoping to alert their audiences to the gravity of the threat and the need to take immediate action (Schneider-Mayerson, “Climate Change Fiction”). In turn, by the mid-2010s, identifying, analyzing, and discussing climate fiction became a common way for ecocritics and environmental humanists to apply their knowledge and abilities to the climate crisis. Climate change, they argued, is ultimately caused not by personal lifestyle choices or specific policies but by the worldviews, values, and priorities that are instilled and legitimized by dominant cultural narratives. Therefore, climate fiction can play a critical role in helping us recognize, understand, and feel the catastrophic trajectory on which we find ourselves and chart a different path forward (e.g., Ghosh; Ramuglia).

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Afraid of the Dark and the Light: Visceralizing Ecocide in *The Road* and *Hell*

Alexa Weik von Mossner
University of Klagenfurt

As a speculative genre that “dreams” alternative and often futuristic worlds into existence, science fiction is in a near-ideal position to explore perceived risks and anxieties regarding large-scale environmental change. Science fiction *film*, with its ability to visualize and *visceralize* speculative future worlds, is particularly powerful in this regard. Maurizia Natali suggests that the “fantasies” we find in recent science fiction films, such as Roland Emmerich’s *The Day After Tomorrow* (2004), may “offer a means for arresting the many preemptive wars of the Empire” we have seen in older movies, and instead “inaugurate a new sublime Desolation: that of ‘global warming’ and future catastrophes of a different nature” (121). Natali does not explore further what exactly such a “new sublime Desolation” would entail, but she certainly is correct in pointing out the remarkable increase in disaster science fiction films in recent years that directly or indirectly evoke potential future ecological catastrophes as a consequence of present human behavior. While this is not an entirely new phenomenon – the 1970s, especially, saw a number of ecologically-themed dystopian science fiction – the re-emergence of such narratives indicates their relevance in a time of ecological uncertainty and change.¹ Robin Murray and Joseph Heumann even argue in *Ecology and Popular Film* (2009) that such films should be seen “as indicators of real changes in worldview” (3).

However, not all science fiction filmmakers who invent eco-futures embrace the openly political stance that Murray and Heumann see behind *The Day After Tomorrow* as well as behind a number of computer-animated family films such as *Ice Age: The Meltdown* (2006) and *Happy Feet* (2006). Some of these filmmakers are more interested in an exploration of the future subjectivities and societies that may result from radical ecological changes, and in the representation of human bodies and minds that are marked by much more hostile environmental conditions than most of us enjoy today. In this essay, I will look at two pertinent examples from two different national traditions: John Hillcoat’s 2009 film adaptation of Cormac McCarthy’s Pulitzer Prize-winning novel *The Road* (2006), and one of the very few German-Swiss science fiction films with an environmental theme, Tim Fehlbau’s *Hell* (2011). My focus will be on how these two films represent future environments and the ways they shape human communities and individual destinies. Of particular importance in this context is the complex role of *setting* and *location* in both films. Given that they both represent post-apocalyptic scenarios with an all but dead biosphere but, for various reasons, rely on no or very little

¹ Pertinent examples of ecologically-themed science fiction films of the 1970s are Douglas Trumbull’s *Silent Running* (1972) and Richard Fleischer’s *Soylent Green* (1973).



RESEARCH ARTICLE

The Role of Fictional Film Exposure and Narrative Engagement for Personal Norms, Guilt and Intentions to Protect The Climate

Helena Bilandzic and Freya Sukalla

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ABSTRACT

Using an integration of Norm Activation Theory, Value-Belief-Norm Theory and Narrative Persuasion, this study investigates the ability of an eco-dystopian science fiction film set in a world of excessive solar radiation to support intentions for pro-environmental behavior. Specifically, the influence of narrative engagement and explicit references to human responsibility for climate change are tested. A 2 (high vs. low narrative engagement) x 3 (human responsibility frame vs. temperature frame vs. no frame) plus control group (no film) experiment was conducted ($n = 257$). Results show that compared to the control condition, the film had an indirect effect on behavioral intentions by raising the personal norm (a sense of personal obligation to act). The temperature change and human responsibility frames did not show any influence, while narrative engagement had an indirect effect on intentions by increasing guilt. The results are discussed with regard to their theoretical and practical implications.

ARTICLE HISTORY

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KEYWORDS

Climate change
communication; fictional
film; narrative engagement;
Value-Belief-Norm-Theory;
Norm Activation Model;
personal norms

Engaging in climate protection depends, to some extent, on an individual’s interpretation and view of the issue of climate change. Markowitz and Shariff (2012) argue that climate change remains an abstract and complex issue that is hard to understand intuitively. Moreover, the temporal and geographical distance make climate change seem like an issue that does not concern the contemporary citizen. In a similar vein, Leiserowitz (2005) concludes that “most Americans lack vivid, concrete, and personally relevant affective images of climate change” (p. 1438). In addition to this lack of personal and emotional involvement (Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007), the increasing public debate may evoke “climate fatigue” (Kerr, 2009) and further lower citizens’ willingness to be exposed to the issue and to engage in climate protection.

We argue that fictional movies that show the possible consequences of climate change are capable of addressing these challenges. First, narratives can function as “simulations” of fictional worlds in the viewers’ minds (Mar & Oatley, 2008). Viewers can vicariously experience what it means to live in a changed climate. Films can show how people struggle to survive in a hot and barren world, devoid of resources, burdened by storms and floods. The severity of potential consequences of climate change, usually hidden in the abstractness of the issue, becomes palpable. Narrative engagement, a state marked by strong attentional focus on the story and intense emotional experience of the plot and the characters (Busselle & Bilandzic, 2009; Green & Brock, 2000), makes the experience of the narrative world more vivid and is likely to influence how viewers think about their own actions to prevent such a desolate world.

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Supplemental data for this article can be accessed at <https://doi.org/10.1080/17524032.2019.1575259>.

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Stories and Extinctions – Does the medium matter?

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- Conclusion
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JOURNAL ARTICLE

Extinction Stories Matter: The Impact of Narrative Representations of Endangered Species Across Media

W P Malecki , Alexa Weik von Mossner, Piotr Sorokowski, Tomasz Frackowiak

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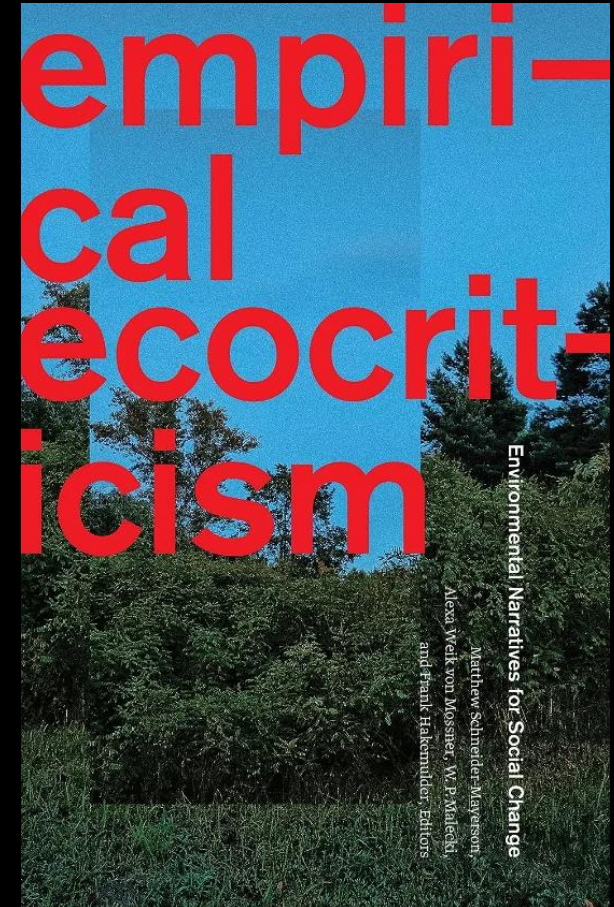
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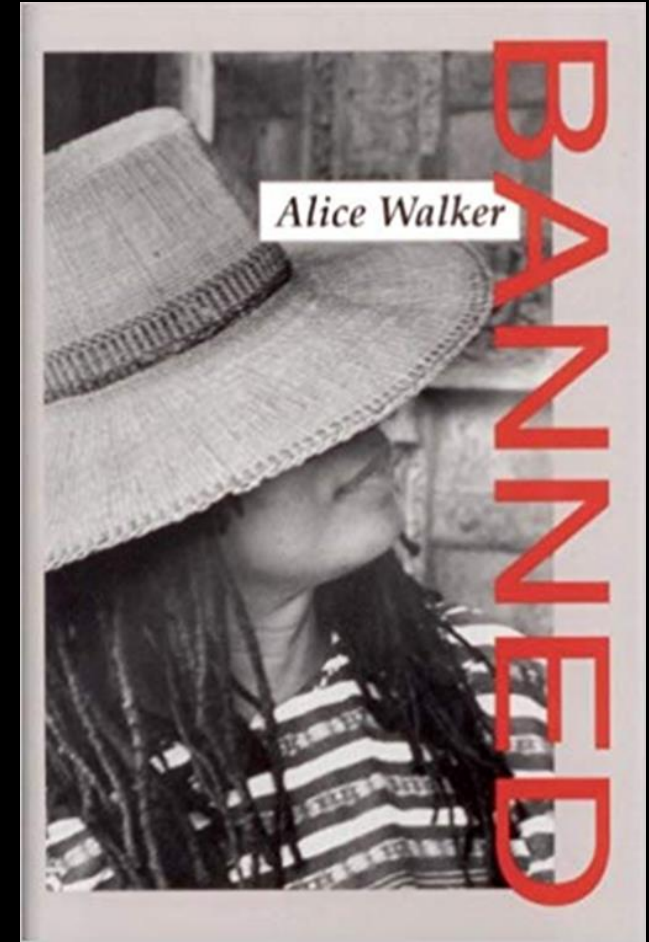
Wojciech Małeckii
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Empirical Ecocriticism
Animal Studies
Quantitative



Frank Hakemulder
Utrecht University
Empirical Study
of Literature
Mixed methods



Alice Walker, “Am I Blue?” (1988)



“Blue was like a crazed person. Blue was, to me, a crazed person. He galloped furiously, as if he were being ridden, around and around his beautiful five acres. He whinnied until he couldn’t. He tore at the ground with his hooves. He butted himself against his single shade tree. He look always toward the road down which his partner had gone. And then, occasionally, when he came up for apples, or I took apples to him, he looked at me. It was a look so piercing, so full of grief, a look so human, I almost laughed (I felt too sad to cry) to think there are people who do not know that **animals suffer**. People like me who have forgotten, and daily forget, all that animals try to tell us” (40).

“Everything you do to us will happen to you; we are your teachers, as you are ours.” (40-41)



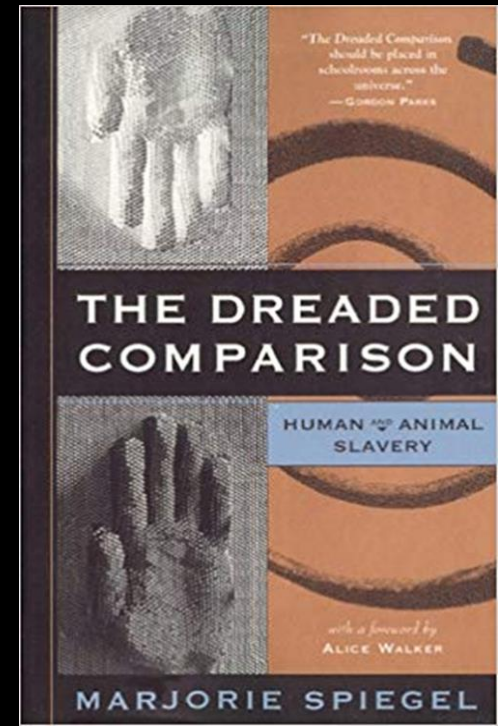
“If I had been born into slavery and my partner had been sold or killed, my eyes would have looked like his” (40).

Animal => human

Animal slavery => human slavery

“The Dreaded Comparison” (Spiegel)

“Humans are to horses as slave owners are to slaves: willfully ignorant of the personhood of their property” (Spiegel 19).



We are used to drinking milk from containers showing “contented” cows, whose real lives we want to hear nothing about, eating eggs and drumsticks from “happy” hens, and munching hamburgers advertised by bulls of integrity who seem to command their fate. As we talked of freedom and justice one day for all, we sat down to steaks. I am eating misery, I thought, as I took the first bite and spat it out. (43)

⇒ “a shocking turn for the essay to take” (Lioi 20).



California Board of Education abruptly removed from a statewide test for 10th graders in 1994

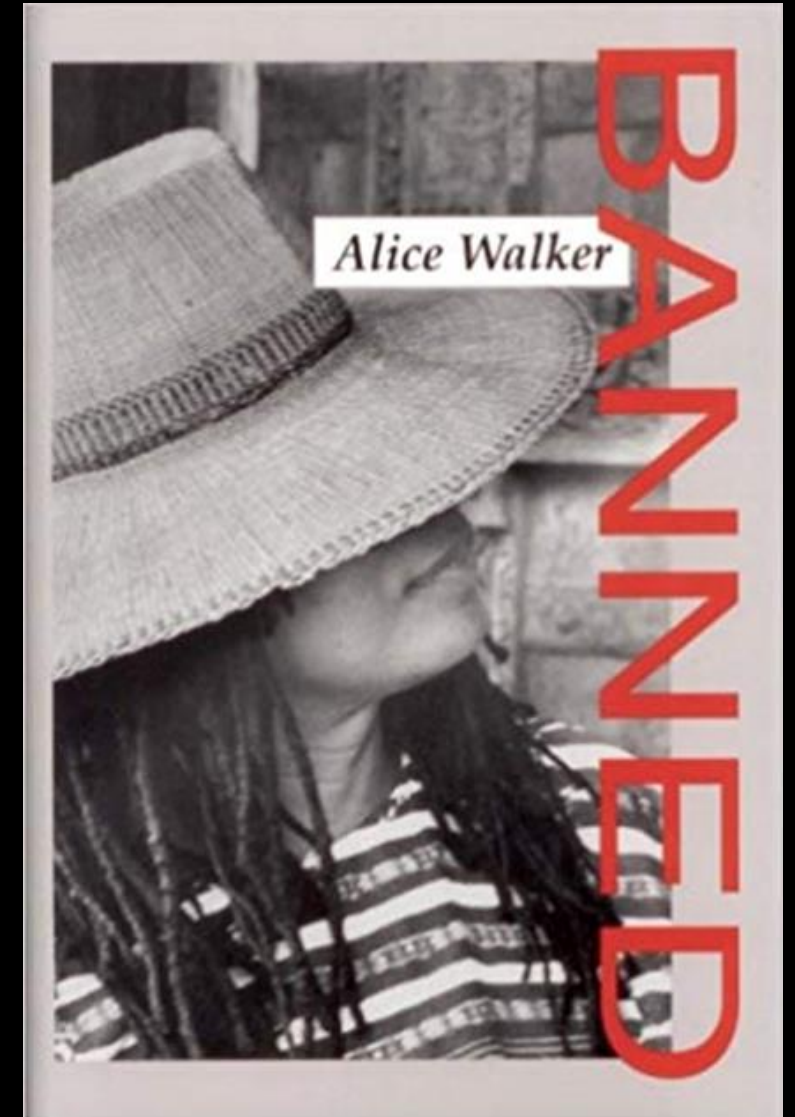
⇒ “anti-meat eating”

⇒ Story was withdrawn “since it had the appearance ... of being offensive ‘because it might be viewed as advocating a particular nutritional lifestyle’ and ‘seemed to violate rural children’s family occupations” (5).

⇒ Story was added to the test again after 600 responses in the *San Francisco Chronicle*

⇒ *“If this story makes people uncomfortable, it’s only because it provokes one to think about issues we may have become desensitized to” (Benzel 69).*

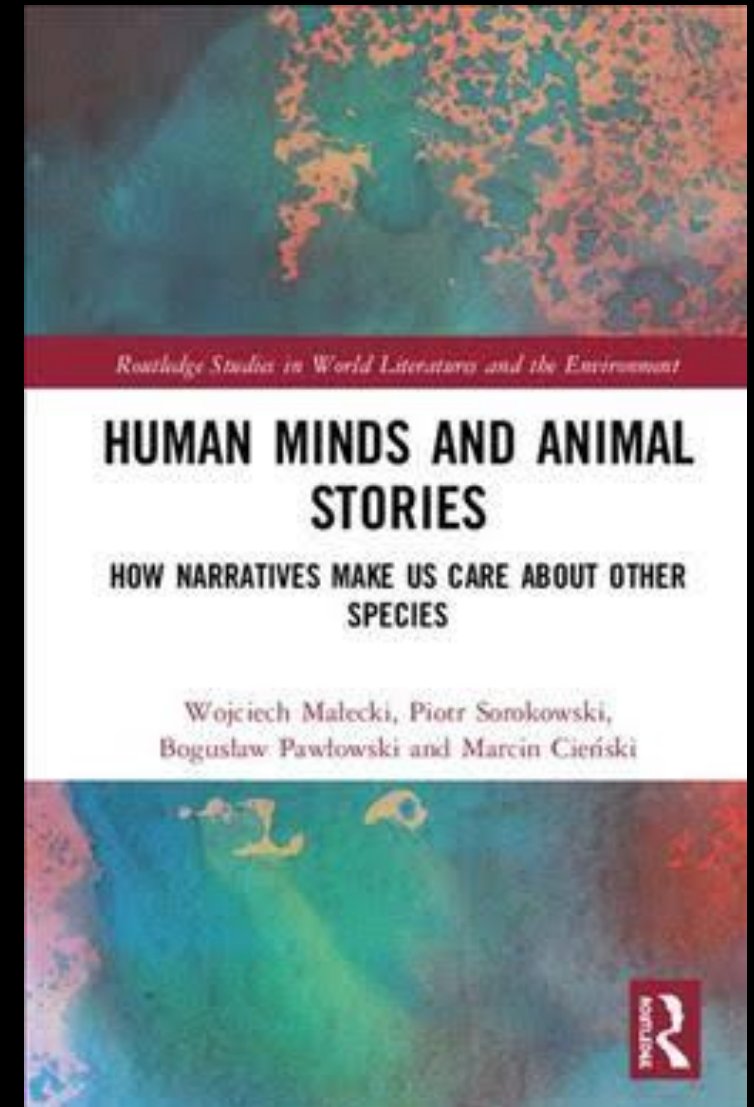
⇒ *“I hate to get technical, but the hamburger is a metaphor, as is the horse” Magnani, 71)*



Used in two quantitative experiments on the effect of animal narratives on attitudes toward animal welfare (Małecki et al. 2019).

Experiment (N=220)

- Three versions the text (text manipulations):
 - The original
 - A narrative-only version consisting solely of the story of the horse and the story of Walker's life
 - An argument-only version
 - ATAW scale (Attitudes toward Animal Welfare)
- ⇒ none of the text versions had an attitudinal impact on subjects' attitudes toward animal welfare in general
- ⇒ second experiment showed that original text does influence attitudes toward horses, specifically



⇒ New question: Does the essay change attitudes toward ethnic minorities/African Americans?

Item “Cultural minorities should be protected and supported.”

⇒ statistically significant difference in attitudes toward cultural minorities between experimental groups and control group

⇒ might indicate potential problems involved in drawing parallels between the oppression of humans and the oppression of non-human species


⇒ Polish study might have been too distant from American cultural realities


⇒ additional research needed, ideally in the US

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JOURNAL ARTICLE

Narrating Human and Animal Oppression: Strategic Empathy and Intersectionalism in Alice Walker’s “Am I Blue?” 

W P Małecki , Alexa Weik von Mossner, Małgorzata Dobrowolska

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Issue Section: Coordinated by Matthew Schneider-Mayerson, Alexa Weik von Mossner, and W.P. Malecki

In recent years, there has been a growing recognition of the conceptual and material

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Quantitative



Marcus Mayorga
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Psychology
Quantitative

Follow-up study in the US

- Online-based (Prolific.com)
- large sample: $n=800$
- more diverse ... a little (67.1% White; 7.9% Hispanic; 6.9% East Asian; 5.9% African American; other)
- 4 groups (3 experimental, 1 control group)
 - (1) original
 - (2) manipulation 1: - dreaded comparison
 - (3) manipulation 2: + physical violence
 - (4) control text



- Two policy questions
 - Support for a meat tax that would help ensure the humane treatment of animals in factory farms.
 - Support for the Preventing Animal Cruelty and Torture Act, which would make animal cruelty a federal crime.
- Second wave 10 days later



Results

A one-way ANOVA revealed no significant differences between the conditions on the ATAW scale.

⇒ replicated the (non)results of the Polish study

No significant differences regarding attitudes toward ethnic minorities.

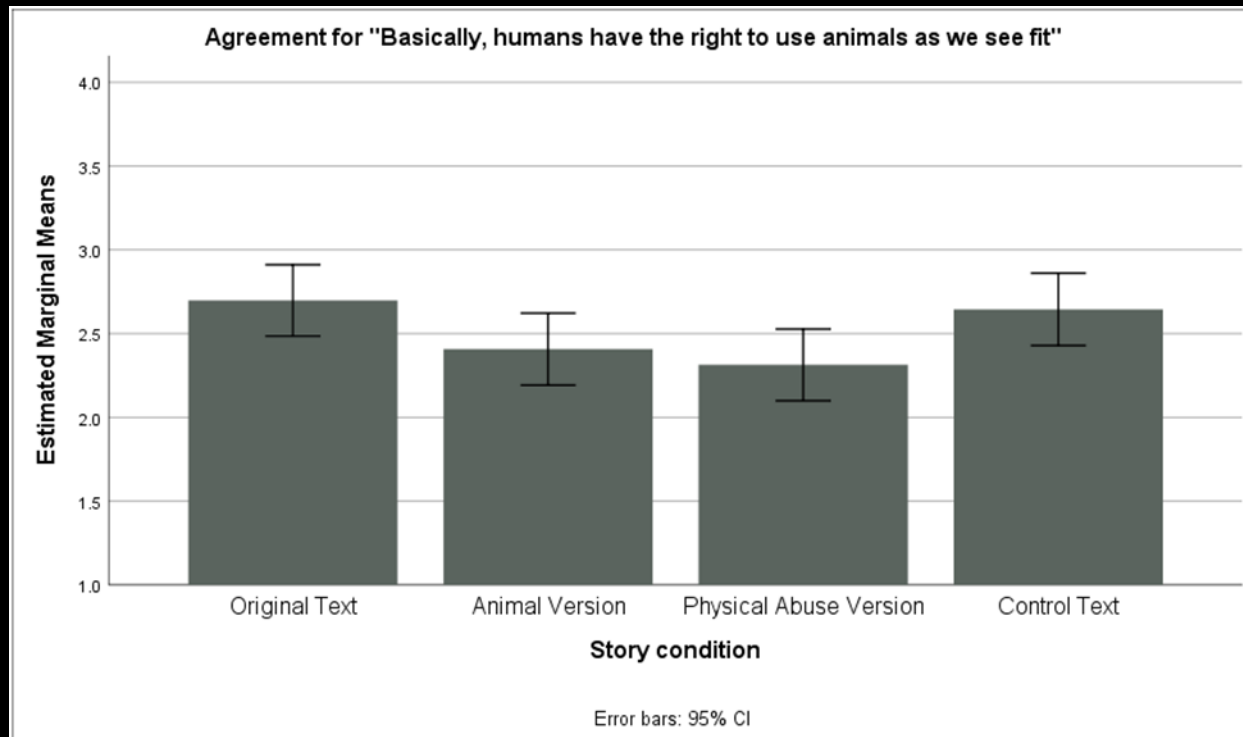
⇒ did not replicate the results of the Polish study

⇒ due to problematic formulation of the item?



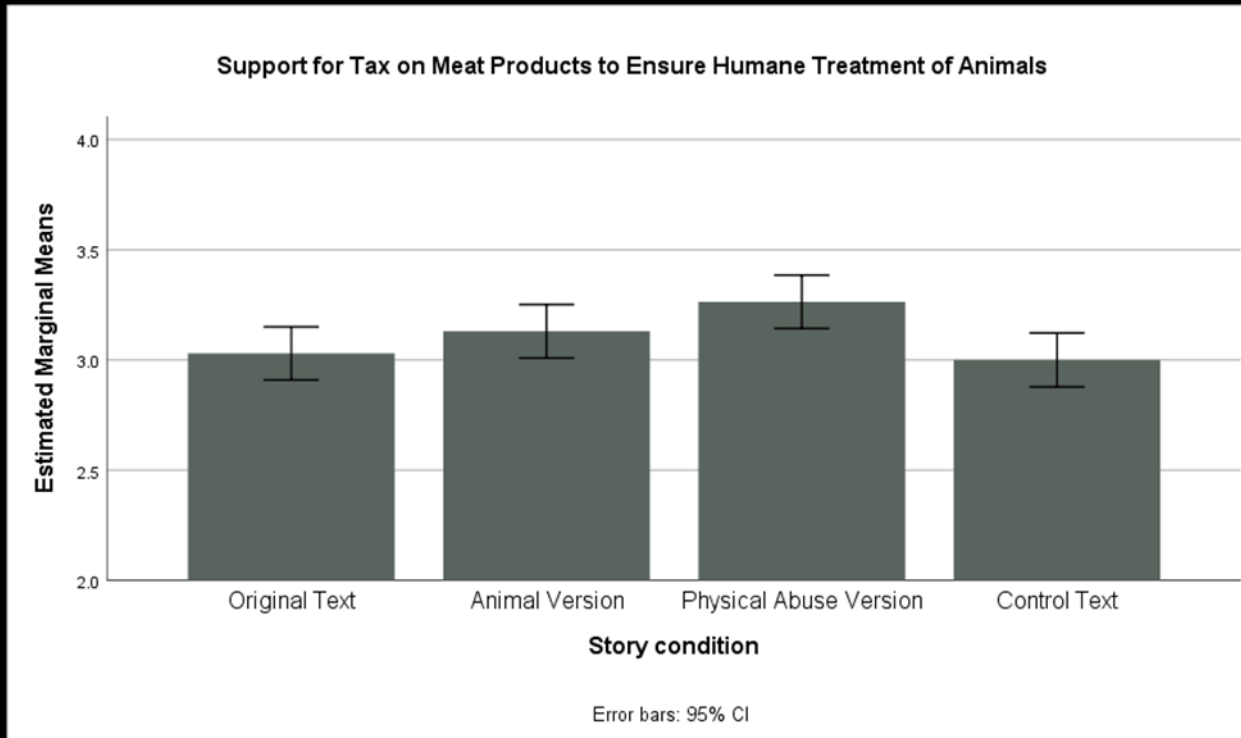
For the Added Physical Abuse condition there was significantly less support for the following statement: “Human needs should always come before the needs of animals” and “Basically, humans have the right to use animals as we see fit.”

⇒ suggests emotional suffering isn't seen as equally problematic



The Added Physical Abuse condition garnered significantly more support for the meat tax than the three other conditions

⇒ Supports previous research by Małecki et al. (2020)



Results for second policy question—asking participants whether they would support a federal law under congressional consideration that would make animal abuse a federal crime

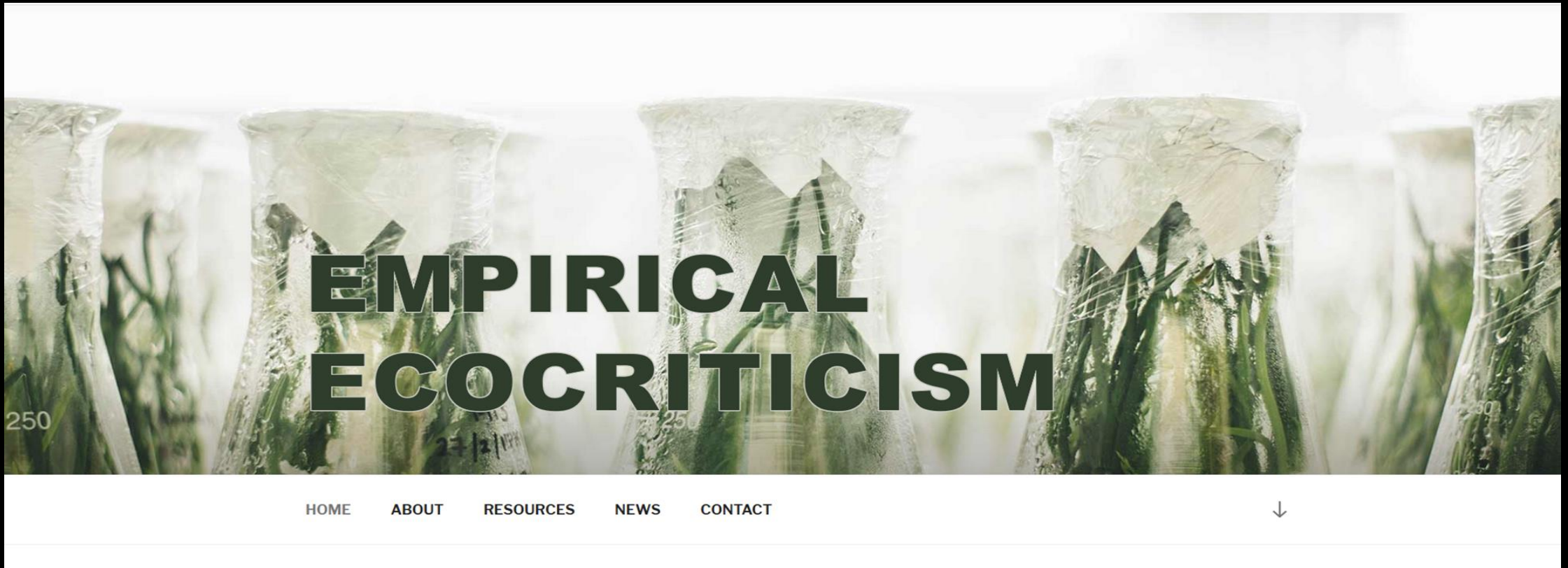
- ⇒ small effect in the opposite direction as predicted: lower support for the bill than the control text
- ⇒ Perhaps due to its attempts at a radical reevaluation of animal emotions as well as of commonly accepted practices in the U.S., such as milk and meat production/consumption
- ⇒ Readers who come to a radical text from a culturally dominant perspective might negotiate (Hall) its central message in ways that effectively “neutralize” that message (Ross 2011, 8).



- Results concerning attitudes toward minorities suggest that the use of the dreaded comparison may have unintended consequences that are sensitive to cultural context.
- Critics should not assume that just because a “radical” text is being encountered by a lot of mainstream readers, it will have the intended or expected impact
 - ⇒ potential implications for communication/storytelling (PETA campaigns), also about other environmental issues
- A second and more basic conclusion is that reception is often far more complicated than expected



Thank you!



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