The Fable of *The Three Little Pigs*: Climate Change and Green Cultural Criminology

Avi Brisman
Eastern Kentucky University, United States
Queensland University of Technology, Australia
The University of Newcastle, Australia

Abstract

This paper builds on previous calls for a *green cultural criminology* that is more attuned to *narrative*, as well as a *narrative criminology* that does not limit itself to nonfictional stories of *offenders*, in two ways. First, it considers how a particular kind of environmental narrative—that of climate change—appears, as well as criticisms thereof. In analysing and assessing existing climate change narratives, this paper contemplates the approach of heritage studies to loss and the (theme of) uncertainty surrounding climate-induced migration and human displacement. Second, this paper allegorises the fable of *The Three Little Pigs* as a story of climate change migration—an aspect of climate change that is misrepresented (and sometimes missing) in the discourse. This paper concludes with additional arguments for approaching, reading and analysing stories regarding human–human and human–environment relationships.

Keywords

Climate change; fables; green cultural criminology; green criminology; heritage studies; migration; narrative criminology.

Please cite this article as:

This work is licensed under a Creative Commons Attribution 4.0 International Licence. As an open access journal, articles are free to use with proper attribution. ISSN: 2202-8005

© The Author(s) 2019
A story can tell the truth. ... but a story can also lie. Stories can bend and twist and obfuscate. Controlling stories is power indeed. (Barnhill 2016: 309)

Introduction

In 'Introduction à l’analyse structural des récits' ('An Introduction to the Structural Analysis of Narrative'), Roland Barthes writes:

narrative starts with the very history of mankind; there is not, there has never been anywhere, any people without narrative; all classes, all human groups, have their stories, and very often those stories are enjoyed by men of different and even opposite cultural backgrounds ... Like life itself, [narrative] is there, international, transhistorical, transcultural. (Barthes and Duisit 1975: 237)

Indeed, the centrality of narrative to human existence is such that, to quote Carrabine (2016: 254), 'it is possible to view any culture as a complex assembly of texts to be read', allowing us to understand phenomena ranging from similarities in the seductive forces of radical Islam in London and neo-Nazism in Sweden (Bennhold 2015), to why working-class Americans vote against their own (economic) interests (Brooks 2017; Krugman 2017).

Although narrative has a long history within criminology (e.g., Agnew 2006; Green, South and Smith 2006; Maruna 2001; Shaw 1930), only lately have researchers and scholars of crime and harm come to think reflexively and openly about the dynamic and multifaceted relationship between narrative and experience. Drawing on the ideas of French philosopher Paul Ricoeur (1984), Presser and Sandberg (2015: 4) explain:

[first, narrative may be seen as an objective representation of experience—a historical record of what happened. Second, narrative may be seen as a subjective interpretation of experience. As in the first conceptualization, narrative as interpretative statement reveals what happened but through a subjective lens. Third, narrative may be seen as shaping experience. In this conceptualization, experience is always understood and acted upon as it has been storied.

Adopting the third (constitutive) view, Presser and Sandberg (2015, 2017) have promulgated a narrative criminology—one that explores the ways that stories influence (instigate, sustain or effect desistance from) crime and other harm (see also Presser 2009, 2012; Sandberg 2010, 2013, 2016).

While initial narrative criminological endeavours typically involved the study of the stories of offenders (Sandberg et al. 2014), recently, narrative criminologists have moved beyond this offender-centred focus. For example, Wright (2016) explores the construction of the bereaved mother figure as a ‘victim–hero’ within contemporary media-enacted crime narratives to consider how such accounts affect criminal justice practice and policy in New Zealand. Arguing that ‘if ... storytelling is an essential part of the human experience in general’, Ugelvik (2016: 216) contends that ‘stories should also be seen as a central part of the smooth running of any government agency’. He attempts to demonstrate as much by examining how officers in a Norwegian immigration detention centre make sense of their roles and construct their jobs and the institution in which they work as legitimate. Kurtz and Upton (2017a, 2017b) similarly extend the narrative criminological approach to those employed in the criminal justice system by drawing on interviews with police officers in Midwestern United States (US) to contemplate the role that police storytelling and narratives may play in the (re)production of (masculinity in) contemporary police culture.
At the same time that narrative criminologists have broadened the field of inquiry to include narratives other than offenders’ stories about their offences or desistance from crime—or abstinence from harm-doing (stories that restrain harm in groups at risk of radicalisation and involvement in terrorism; see Joosse, Bucerius and Thompson 2015)—other researchers and scholars have undertaken attempts to integrate narrative criminology with other criminologies. For example, Carrabine (2016) probes the extent to which the ‘narrative turn’ in criminology can help inform how images should be read and interpreted, discussing the representation of punishment in two medieval paintings and arguing that such depictions of extreme violence dramatised, rather than reflected, the realities of medieval life. Essentially, Carrabine’s article makes the case for integrating narrative and visual criminology, and, as such, bears resemblance to my (2017b) proposition in ‘On Narrative and Green Cultural Criminology’ that narrative criminology can add something to green cultural criminology, and vice versa. In that paper, I made a call for a green cultural criminology that is more attuned to narrative and a narrative criminology that does not restrict itself to nonfictional stories of offenders.

The present paper builds on Brisman (2017b) in two ways: (1) it considers how a particular kind of environmental narrative—that of climate change—appears, as well as criticisms thereof; and (2) it allegorises the fable of The Three Little Pigs as a story of climate change migration—an aspect of climate change that is misrepresented (and sometimes missing) in the discourse.

I begin with a brief overview of green cultural criminology and highlight ways in which stories create and describe linkages between personal and collective experiences of, responsibility for and solutions to environmental harm. From here, I trace the contours of existing climate change narratives, which, as Randall (2009) argues, run parallel but are disconnected. I present Randall’s argument for why this is the case, and analyse and assess her recommendations. In examining her suggestions, I contemplate the approach of heritage studies to loss and the (theme of) uncertainty surrounding climate-induced migration and human displacement.

To support my argument regarding the role of uncertainty in the climate change discourse surrounding migration, I look to the fable of The Three Little Pigs and its various permutations. While the fable predates the nineteenth-century scientific discovery of climate change and the identification of the greenhouse effect (see Gillis 2017; McNall 2011; Smith and Howe 2015), I make a case for reading The Three Little Pigs as a climate change narrative—one that dramatises human weakness and illustrates a moral with respect to climate-induced migration and injustice. If, as Wright (2016: 331) suggests, ‘crime news stories function to mark the moral boundaries of society’, then so, too, might stories about environmental crime and harm—regardless of the explicitness of their didacticism. The Three Little Pigs is not ostensibly a story of environmental crime and harm. And thus this paper represents the opposite kind of endeavour to ‘On Narrative and Green Cultural Criminology’ (Brisman 2017b) and other green cultural criminological attempts to examine the dynamics of causation and response to environmental problems described in fiction and science fiction (including children’s literature and young adult fiction). Nevertheless, I contend that The Three Little Pigs can be interpreted as a tale about climate change, and conclude the paper with additional arguments for approaching, reading and analysing stories regarding human–human and human–environment relationships.

Narrative in green cultural criminology

Green cultural criminology seeks to bring together green criminology and cultural criminology, and to identify points of overlap. For present purposes, if cultural criminology is, to quote Ferrell (1999: 396), ‘an emergent array of perspectives linked by sensitivities to image, meaning, and representation in the study of crime and crime control’, then green cultural criminology might be conceptualised as an emergent array of perspectives linked by sensitivities to image, meaning and representation in the study of green or environmental crime and environmental crime control. Accordingly, green cultural criminology (1) considers the way(s) in which environmental crime,
harm and disaster are constructed, envisioned and represented by the news media and in popular cultural forms; (2) dedicates increased attention to patterns of consumption, constructed consumerism, commodification of nature and related market processes; and (3) devotes heightened concern to the contestation of space, transgression and resistance to analyse the ways in which environmental harms are opposed in and on the streets, and in day-to-day living (Brisman 2014, 2015a, 2017a, 2017b, 2017c; Brisman and South 2012, 2013, 2014, 2015a, 2017a, 2017b, 2017c, 2018; Brismar, McClanahan and South 2014; Mazurek 2017; McClanahan 2014; McClanahan, Brisman and South 2017; Redmon 2018; Schally 2018). The first of these is most pertinent to this paper’s purpose.

Previous green cultural criminological attempts to probe how, to quote Presser (2009: 178–179), ‘stories thematize the points of connection between personal and collective experience, desire and effort’ (or lack thereof) with respect to environmental harm have included:

1. exploring children’s stories about climate change and environmental harm to reveal how some stories ‘emphasize individual actions’, but ‘pay scant attention to the role of national, state and local government’ and, thus, ‘serve as a form of ‘neoliberal moral shaping’, thereby sending a message to our kids that governmental entities cannot, will not and should not act, inter alia, reduce greenhouse gas emissions (Brisman 2013: 277–278, quoting Wiegratz 2010: 124)

2. identifying the disturbing pattern in children’s literature of individualising environmental degradation (e.g., attributing global warming only to personal transportation choices) and excluding any reference to the role of corporate entities or the state—a practice that rehearses the neoliberal logic that it is the duty, responsibility and province of individuals (if there is a duty or responsibility at all) to protect and preserve nature (the natural environment), our planet and its ecosystems (Brisman and South 2017c).6

3. highlighting commonalities and differences in post-apocalyptic or dystopian novels in their depictions of the relationship between environment and conflict for the purpose of emphasising ‘what is at stake and warn us of what is to come if we do not change our ecocidal tendencies’, and underscoring the need for “alternative stories” (Richardson 1995: 213)—ones that present an imagined future of a healthier Earth and a better world for humanity on this planet (Brisman 2015a: 303).

These endeavours were undertaken in the absence of dialogue with—indeed, without acknowledgment of—narrative criminology. In ‘On Narrative and Green Cultural Criminology’, I sought to rectify lack of conversation between green cultural criminology and narrative criminology by putting forth two arguments:

1. If, as Sandberg (2016: 156) maintains, narratives or stories are ‘criminogenic’ insofar as they ‘motivate, maintain or restrain’ crime and harm, then narratives or stories can also reveal how we have instigated or sustained harmful action with respect to the environment and can portray a world suffering from the failure to effect desistance from harmful action—a project somewhat akin to Wilson’s (2014: 111) notion of ‘crime in literature’.7 In so doing, I distinguished between (a) stories (such as Ian McEwan’s (2010) Solar) that serve as metaphors for our current ecocidal tendencies, and (b) those cautionary tales that depict worlds different from our own and without certain material comforts—a wanting brought about by our anthropocentric myopia (such as Octavia Butler’s (1993, 1998) Parable series—Parable of the Sower and Parable of the Talents; James Howard Kunstler’s (2008) World Made By Hand; and Margaret Atwood’s (2003,

2. If narratives or stories can ‘shape, inspire, and uphold crime’ (Copes, Hochstetler and Sandberg 2015: 34)—indeed, if they can convey ‘culturally relevant information’ that ‘shapes interpretations of the past and guides future action’ (Keeton 2015: 126) or ‘motivate[s] and shape[s] practices’ (Sandberg 2016: 158), more generally—then narratives or stories can, may and do possess the potential to influence and affect future action (or can stimulate thought regarding future action) with respect to the natural world, its ecosystems and the biosphere as a whole. In so doing, I differentiated between stories about our capacity for changing our attitudes, behaviours, patterns and practices with respect to the environment, such as The Peaceable Forest: India’s Tale of Kindness to Animals (Ely 2012) and Just a Dream (Van Allsburg 1990)—both of which demonstrate the capacity for humans to change—and change for the better—as well as stories regarding what might go wrong in the process (Solar).

‘On Narrative and Green Cultural Criminology’ was motivated by the conviction that narrative criminology need not limit itself to the study of offenders, given that in the context of environmental crime and harm, the same individuals and groups may be perpetrators, victims or bystanders (at the same juncture or at different times). That paper also maintained that if it is not necessary to confirm the accuracy of a story for it to merit study under the narrative criminological framework (see Colvin 2015; Sandberg 2010)—that if ‘narratives have explanatory power regardless of their veracity’ (Kurtz and Upton 2017b)—then excluding fictional representations becomes a matter of pedantry.8

The present paper extends the efforts undertaken in Brisman (2017b) by considering how a particular fable (and various permutations thereof)—that of The Three Little Pigs—can illustrate dynamics regarding climate-induced migration and injustice. Before turning to the various versions and possible interpretations of this story, it is first necessary to consider the contours of current climate change discourse.

Parallel and disconnected narratives in climate change discourse

According to Randall (2009: 119), climate change discourses appear as—or can be categorised as—two parallel but disconnected narratives: one pertaining to ‘the problems of climate change’, the other regarding ‘the solutions’. In the first of these narratives—those about the problem of climate change—loss is a, if not the, dominant theme:

loss of bio-diversity, loss of habitat, extinction of species; crop failure, water shortage, drought; fuel scarcity, resource wars, illness and famine; loss of livelihood, loss of liberty, mass migration, breakdown of civilization. (Randall 2009: 119)

As Randall (2009: 119) proceeds to explain:

the losses described are catastrophic but, for audiences in the developed, industrialized nations, they are remote, either far in the future, or geographically distant. They will happen to other people, in other places, or in other times. The consequence is that the loss feels unreal, rather like acknowledging in one’s twenties that death is inevitable. It is not a problem for now.
Randall’s observations about Western perceptions of loss have been echoed elsewhere. For example, Smith and Howe (2015: 2) claim that ‘people see [climate change] as a problem for other generations or distant parts of the globe’. More recently, Manjoo (2017: para. 11) argues that:

[i]f you want to prompt expensive, collective global action, you need to tell people the absolute worst that could happen. We humans do not stir at the merely slightly uncomfortable. Only the worst case gets us going.

Likewise, in reporting on data from the Yale Program on Climate Change Communication, Popovich, Schwartz and Schlossberg (2017: 13) state:

[m]ost people know climate change is happening, and a majority agrees it is harming people in the [US]. But most don’t believe it will harm them.

Global warming is precisely the kind of threat humans are awful at dealing with: a problem with enormous consequences over the long term, but little that is sharply visible on a personal level in the short term. Humans are hard-wired for quick fight-or-flight reactions in the face of an imminent threat, but not highly motivated to act against slow-moving and somewhat abstract problems, even if the challenges that they pose are ultimately dire.

In the second of these narratives—those about the solutions to climate change—loss has been excised:

[T]he narratives about climate solutions largely ignore the question of loss. Although they imply that if we do not act now, then catastrophic losses will occur, they do not raise the possibility that we might already be experiencing losses or that the actions that need to be taken to avert catastrophic loss themselves involve loss. (Randall 2009: 119)

The result, Randall (2009: 119) explains, is a ‘world of extremes’, where ‘what is good’ (and exists in the present) is ‘idealized’, and ‘what is bad’ (and likely to occur in the future) ‘becomes monstrous’. Essentially, this dynamic of parallel but disconnected narratives creates a situation whereby the fear of loss is divorced from the present and projected into the future; the present, in turn, ‘continues to feel safe but at the expense of the future becoming terrifying. On the one hand, nightmare, on the other false comfort’ (Randall 2009: 119).

Moreover, Randall (2009: 119) asserts, the dominant solution narratives—of which she identifies five—come across as ‘bland’ and ‘unchallenging’. In the first of these—what Randall (2009: 119) calls the 'Small steps' story—‘we all need to “do our bit”’. These easy, feel-good and painless measures include changing our light bulbs, accelerating less while driving and improving the insulation in one’s home. If committed and empowered citizens take these steps, so the story goes, we will be well on the road to ‘climate-recovery’ (Randall 2009: 119).

In the second solution story, 'Market transformation/green consumerism', change appears ‘attractive and aspirational’ (Randall 2009: 119). As Randall (2009: 119–120) describes wryly:

[o]ld objects of consumer delight can be swapped for new ones. Just as the Victorian age of cluttered bric-a-brac gave way to the clean lines of modernism, so also our attraction for fast cars and trashy plastic novelties can be replaced by a desire for solar panels, efficient fridges, and a service economy. In this story, action on climate change becomes part and parcel of ordinary consumer lifestyles.
The third solution story, Randall (2009: 120) claims, is that in which 'technology will save us'. In this solution story:

the boffins (all those professors in white coats, pebble-glasses, and crazy hair) have the answers—whether it is renewables, nuclear power, or geoengineering. Once they have their hands on the resources they need, they will deliver a world much like the one we know. (Randall 2009: 120)

In this familiar story, we assume that some 'technological fix' (Levene and Conversi 2014: 292) or some 'technological salvation' (Brisman 2015a: 295) awaits us. As Levitt and Dubner (2009: 11) write in their popular book, SuperFreakonomics: Global Cooling, Patriotic Prostitutes, and Why Suicide Bombers Should Buy Life Insurance:

humankind has a great capacity for finding technological solutions to seemingly intractable problems, and this will likely be the case for global warming. It isn’t that the problem isn’t potentially large. It’s just that human ingenuity—when given proper incentives—is bound to be larger. Even more encouraging, technological fixes are often far simpler, and therefore cheaper, than the doomsayers could have imagined.

Indeed, we consider our technological abilities to be a defining feature separating humans from non-human animals. As Crook and Short (2014: 310) explain, ‘while other creatures responded to harsh or varied conditions with biological change over time, humans have generally relied upon their ingenuity to survive’.9

Randall’s (2009: 120) fourth solution story, 'Decarbonization', correlates with the hope for 'technological salvation', discussed by Brisman (2015a: 295). Here, economic growth is unaffected:

High-carbon forms of energy are exchanged for low-carbon ones and deliver a future very similar to the one we know now in the West. Economic growth continues, individuals’ lives change little. (Randall 2009: 120)

Finally, in the fifth story, 'The happiness tale', life as we know it changes, but we find it preferable to the status quo. In this story, Randall (2009: 120) explains, 'we will be happier because the new low-carbon world will bring us a closer sense of community, more meaningful work and more time to spend with our families'.

Randall acknowledges that there is some degree of truth in all of these narratives—that small steps must be made, and that decarbonisation and some technological change will be necessary. Her larger point, however, is that we need to better connect the 'problems' narratives and the 'solutions' narratives, and, as such, she offers four ways in which we might 'use an understanding of the processes of loss and mourning in a practical way' (Randall 2009: 125). First, Randall (2009: 125) argues that we must:

start telling the truth about loss. We need to withdraw the projections of loss from the future and make loss real in the present. We need both to stop catastrophizing the future and stop wrapping the present in cotton wool. By doing so, we will diminish both extremes and make loss manageable, both now and for our children and grandchildren.

In a similar way, Gebrial and Hymer (2017: para. 2), in a provocative piece entitled '5 Reasons Not to Be An Environmentalist', assert:
narratives around the climate crisis often frame the environment as abstracted from people and society. Climate marches are reliably littered with images of polar bears and romanticised talk of ‘saving the earth’, but rarely centre frontline communities—and how their racialised, gendered and classed positions affect the extent to which they are disproportionately exposed to the impacts of climate change. In the Global North, ‘green’ activism is broadly seen as the domain of middle-class white people expressing an abstracted ‘love of nature’.

Telling the truth about loss would also—or so it would seem—entail focusing less ‘on the most extreme predictions, on the potentially apocalyptic consequences of unmitigated climate change’, and more on ‘the simple truth that climate change is already ... affecting the lives of millions of people’ (Zimmerer 2014: 266).

Randall’s (2009: 125) second recommendation is to ‘encourage realism about the nature of the transitions we face and what they mean to different people’. This means offering ‘realistic scenarios that people can relate to, with realistic time-scales, choices, and options’ (Randall 2009: 125). Within these scenarios, Randall proposes that we must discuss frankly not only the losses that will be involved or will take place, but also the effects on different sectors of society and on individuals’ aspirations, desires and identities.

The third move, Randall (2009: 126) continues, requires that we:

emphasize creativity and involvement in developing scenarios and solutions. We need to reject one-size-fits-all scenarios. We need to listen to and involve diverse communities who will have very different priorities and responses.

This would seem to entail, as Crook and Short (2014: 310) posit, ‘creating innovative ways to live and communicate, and pass down knowledge to children—for the human species, culture is our primary adaptive mechanism’.

Finally, Randall (2009: 126) stresses that ‘we need to appeal to people’s values and their capacity for concern’. Rather than fearing loss—and fearing a future of loss (or a future with loss)—Randall (2009: 126) maintains that:

we need to normalize choosing loss and working through the complex emotions that are involved in it. We need to assert the truth that people are more than their material and consuming selves and that by making difficult choices they will enrich themselves and society.

Convincing people, particularly Westerners, that they ‘are more than their material and consuming selves’ (Randall 2009: 126) is no small task at a time in which one’s identity—indeed, one’s existence—seems dependent on consumerism and consumption (see Orlow 2012). Making some ‘difficult choices’, however, would enrich individuals (on a personal, emotional and perhaps spiritual level) and society, more broadly. Moreover, it would take steps towards recognising and ameliorating the distributional differences of climate change, specifically, that developed countries have contributed most to the greenhouse gas emissions that drive climate change, while the developing countries have born and will continue to experience most of the burden of its effects (Barnes and Dove 2015: 8; see also Amster 2015: 119–120; McNall 2011: 15; Perera 2017a, 2017b; Wallace-Wells 2017; Yamada, Burkett and Maskarinec 2017: 96–97; Zimmerer 2014: 266).

Randall’s depiction of dual narratives is compelling and her criticisms thereof are convincing. And there is merit to some of her suggestions, such as the need to ‘make loss real in the present’ (Randall 2009: 125). This means not just fixating on all of the worst possible outcomes of our
actions and inactions, but accentuating “already being experienced” losses (Brisman 2013: 245), such as how, over the last couple of years, unusually warm waters in the Pacific Ocean have caused the Great Barrier Reef to suffer some of its worst bleaching in history, killing large swaths of coral and adversely affecting the marine ecosystems that depend on them (Hughes et al. 2018; Meyer 2018; Plumer and Popovish 2017; Turrentine 2017; see also Figueres 2017). But there are at least two shortcomings to Randall’s approach.

First, consider the perspective of heritage studies scholars, particularly as it pertains to loss and uncertainty. As Harvey and Perry (2015: 7–8), in their introduction to The Future of Heritage as Climates Change: Loss, Adaptation and Creativity, contend:

> [a]ll climate change policies and attitudes operate through an implicit, common framework: a perceived impression of the past, shaping a contemporary agenda geared towards sustaining a particular scenario for future generations.

The implication, they continue, is twofold: (1) change is a threat and we must prevent or otherwise mitigate this threat; and (2) uncertainty necessarily leads to something unfortunate or disastrous (Harvey and Perry 2015: 4). Accordingly, Harvey and Perry (2015: 9) call for an ‘alternative’ perspective of climate change—one that neither denies its existence nor simply accepts ‘a narrative of unidirectional “losses” due to “threat”’—or, for that matter, harm(s) arising or stemming from uncertainty. Each of these narrow views, they maintain, reject creative engagement. As an example, Harvey and Perry point to the small village of Dunwich in the East Anglian county of Suffolk. At one juncture in time, Dunwich was one of the largest towns in England (Whiteley 2016), but after centuries of coastal erosion, it has become ‘Britain’s Atlantis’ (University of Southampton 2013: para. 1). What was once a port rivaling London (Kennedy 2013), Dunwich has largely disappeared beneath the waves and is now home to fewer than 200 residents (Whiteley 2016). Harvey and Perry (2015: 11) suggest that:

> [i]n contrast to mourning losses, the community has a heritage industry actively devoted to portraying ephemerality, loss and absence, complemented by a strong sense of communal pride in this history of decay and disappearance.

Essentially, their point here and elsewhere (e.g., Perry and Harvey 2015: 272)—and that of other heritage scholars (e.g., Dawson 2015)—is that ‘loss’ and ‘change’ (as well as uncertainty) are often viewed in reductive terms, but that it is change that can make coasts interesting and special.10

Admittedly, contemplating ‘loss’ due to anthropogenic climate change as something other than detrimental is a risky proposition, and I wish to make abundantly clear that I am not suggesting that we applaud socioecological disruptions due to a warming planet.11 Moreover, not all coasts or areas have, are or will become more ‘interesting’ (Ferraby 2016: 39, 40) because of global climate change. For example, unless one prefers Robert Ryman’s white-on-white paintings to the lurid colours of Abstract Expressionists, such as Hans Hofmann, Jackson Pollock or Mark Rothko, the Great Barrier Reef will not be more interesting or dynamic bleached white. There is no ‘charm of what is not there’ (Harvey and Perry 2016: 11, emphasis in original). But there is something to be gained by giving pause to the argument that all loss or change is negative—or that all uncertainties will result in something destructive or detrimental. While this does not mean, to return to Randall (2009: 125), that we should stop telling or not reveal ‘the truth about loss’ or make loss less real in the present, it does require a more measured approach to how we consider and understand present loss, as well as a more imaginative view of possible futures. The temptation might be to dismiss this suggestion as little more than trying to ‘put a positive spin’ on environmental despoliation and destruction or to view the future through ‘rose-coloured glasses’. But by adopting the type of creative engagement with climate change that such heritage studies scholars advocate—which I see as different from (or at least more specific than) Randall’s
(2009: 126) suggestion to ‘emphasize creativity’—we might be better able to prioritise our mitigation efforts and be better suited to adapt to those changes that do or will take place.

Second, Randall’s fixation on ‘loss’ and ‘realism’ ignores the issue of climate-induced migration. According to Chambers (2011: 57):

[j]t is realistic to expect that climate change is having and will continue to have significant impact on the people of the world and there will be naturally socio-economic damage, such as loss of infrastructure, resource scarcity and mass people displacement.

The number of people who have been and will be displaced is subject to some conjecture, with predictions ranging from 200 million (Chambers 2011) to 700 million (Kimmelman 2017) to one billion (Castles, Hass and Miller 2013: 210) by 2050—a year by which the global population is expected to exceed nine billion (see Chambers 2011). Some of this migration is envisaged to be internal, with people, especially in Asian countries, relocating from rural to urban centres (Chambers 2011)—a phenomenon that some claim occurred in Syria from 2007 to 2010, and precipitated the conflict that began in 2011 and currently continues. As Kelley and colleagues (2015: 3241, 3242) contend, in the winter of 2006–2007, Syria and the greater Fertile Crescent began to experience what would be the three-year drought in the instrumental temperature record:

The drought exacerbated existing water and agricultural insecurity and caused massive agricultural failures and livestock mortality. The most significant consequence was the migration of as many as 1.5 million people from rural farming areas to the peripheries of urban centers.

... The rapidly growing urban peripheries of Syria, marked by illegal settlements, overcrowding, poor infrastructure, unemployment, and crime, were neglected by the Assad government and became the heart of the developing unrest. Thus, the migration in response to the severe and prolonged drought exacerbated a number of the factors often cited as contributing to the unrest, which include unemployment, corruption, and rampant inequality.

In other regions of the world, the prediction is for cross-boundary movement, with Chambers (2011) noting the possibility of environmental refugees into Australia if atoll nations (such as Kiribati, Tokelau, and Tuvalu) become uninhabitable, and Kimmelman (2017) pointing to predictions that 10 per cent of Mexicans ages 15 to 65 could try to emigrate north as a result of rising temperatures, droughts and floods.

The impact of climate change on migration—that desertification, land degradation and sea-level rise, as well as vicissitudes in access to freshwater, will induce the massive movement of people—is often presented as inevitable. Moreover, climate-induced migration is frequently described in negative terms, with suggestions that ‘climate migrants’, to use Byravan and Rajan’s (2017: 109) term, will bring about increased competition for dwindling resources, such as food and water, and exacerbate pre-existing vulnerabilities related to inequality and poverty, which, in turn, will escalate tensions, create upheaval and spark violence (Collins and Stephens 2017; Ferrell 2018; Gillis 2017).

This notion of climate-induced migration as both inescapable and destructive is unfortunate, however. With respect to the issue of inexorability, Castles, Haas and Miller and colleagues (2013: 211) explain that:
environmental change is equally likely to make migration less possible as more probable. Where people are impoverished by such factors as drought or desertification, they may lack the resources to move, and may have to stay in situations of extreme vulnerability.

Turkewitz and Burch (2017) support this perspective, reporting that when Hurricane Harvey hit Houston in 2017, wealthy residents either left Houston or checked into hotels, whereas impoverished residents sought safety in shelters. Castles, Haas and Miller (2013: 212) contend that ‘there is little evidence that climate change will cause massive migration movement’. As they maintain:

[i]t is very difficult to identify groups of people already displaced by climate change alone ... Even the cases portrayed in the media as most clear-cut become more complex when looked at closely. (Castles, Haas and Miller 2013: 212)

Yamada, Burkett and Maskarinec (2017: 93, emphasis added) express similar reservations about the ineluctability of climate-change induced migration, stressing that it should not be analysed in isolation from other forms of movement and asserting that ‘climatic changes act in concert with other socioeconomic and political factors to drive displacement’. As such, it becomes necessary to study the multiple and synergistic factors affecting whether migration occurs, as well as its timing and scale.

With respect to the presupposition that climate-induced migration will generate conflict and strife, Castles, Haas and Miller (2013: 213) caution that ‘migration should not generally be seen as negative: people have always moved in search of better livelihoods, and this can bring benefits both for origin and destination areas’—a view supported by Kelman (2017) and Stojanov and colleagues (2017), as well as by Ferrell (2018) in his recent analysis of drift. Likewise, Barnes and Dove (2015: 10) point out that in contrast to media portrayals of:

potential climate refugees as passive victims of changing climate, ... a more holistic view reveals that for many of these people migration has historically been a central part of their everyday lives, with or without climate change.

Indeed, as Castles, Haas and Miller (2013: 213) remind us, even under the most difficult conditions, people have some degree of agency:

Strategies that treat them as passive victims are counterproductive, and protection of rights should be about giving people the chance to deploy their agency. The objective of public policy should not be to prevent migration, but rather to ensure that it can take place in appropriate ways and under conditions of safety, security and legality.

Migration, then, may be a valuable adaptation to change—an adaptation consistent with human history.

I would suggest that the lack of clarity regarding the climate-migration nexus (i.e., whether migration will occur and, if it does, whether it will have adverse effects) throws a wrinkle into Randall’s approach. Recall that her response to the insipid solution narratives is to try to understand the processes of loss in practical ways. She takes loss due to climate change as preordained and then seeks to figure out how to come to terms with it. The perspective of heritage studies scholars is to view loss in less pejorative terms and to undertake creative engagement with climate change. With respect to climate change and migration, uncertainty is the dominant theme; loss may play a part, but so, too, will varying degrees of vulnerability and resilience, passivity and agency. Essentially, while there is something appealing about Randall’s diagnosis of
climate change discourses as divided into two parallel and disconnected narratives (one about 'the problem', in which loss is the dominant theme, the other about 'the solutions', which are mild and prosaic), her proposed resolution is wanting insofar as it seeks to engage with the theme of loss (thus, extending its dominance) rather than challenging it with the revelation and examination of other themes. As I have attempted to illustrate, not only is her interaction with loss lacking, but the theme of uncertainty is more prominent in one particular climate change issue—that of climate change and migration.

To better understand why uncertainty (rather than loss) characterises the climate change-migration issue—to better comprehend the dangers of assuming a fixed and determined sad ending to the climate change story (i.e., that climate change will necessarily spur mass migration and that such migration will have disastrous results for both those who relocate and those receiving regions)—I suggest that we consider the various different versions of the well-known fable The Three Little Pigs as a tale about climate change. Doing so, as I attempt to demonstrate in the next part, may make us better prepared for whatever future we encounter.

The Three Little Pigs as a climate change fable

As noted in the Introduction to this paper, previous work in green cultural criminology has examined the representation of victims and offenders, causes and consequences, and responses and solutions to environmental crime and harm in stories that are advertised as such—that is, in fiction, whose plotlines and often titles are explicit in their environmental subject matter. While there is no shortage of fiction on or about climate change and global warming—indeed, the phenomenon of climate change has spurred its own literary genre—‘climate fiction’ or ‘cli-fi’ (for a discussion, see, e.g., Johns-Putra 2016; Tuhus-Dubrow 2013)—here, I consider versions of a fable not known necessarily for its moral messages about human–environment relations. Much as Ruggiero (2002) re-read Herman Melville’s Moby Dick to illuminate points and issues of interest to green criminologists regarding acceptable and unacceptable economic practices, I allegorise The Three Little Pigs, suggesting how different versions of the fable can be transformed into narratives of climate (in)justice and migration.

The fable, The Three Little Pigs, is well over 100 years old, having appeared in Joseph Jacobs's English Fairy Tales in 1890 and, before that, in James Halliwell-Phillipps's The Nursery Rhymes of England (1886). Since then, numerous versions and adaptations (as cartoons and films) have been created. An exhaustive account of all of the variations is outside the scope of this paper. Accordingly, I focus on four versions, two of which veer rather substantially from the better-known forms.

Most versions begin the same way: the title characters are sent out into the world by their mother to 'seek their fortune'. The first little pig builds a house of straw, the second a house of sticks and the third a house of bricks. In some versions (such as Jacobs's and Halliwell-Phillipps's), a wolf blows down the houses of the first two pigs and devours them. Unsuccessful in his efforts to blow down the third pig's house of bricks, the wolf endeavours to lure the pig out of his home by asking to meet him at various places, but is outwitted each time. The wolf then resolves to come down the chimney of the brick house, whereupon the pig catches the wolf in a cauldron of boiling water, cooks him and eats him.

In other versions (e.g., Bas 1995/2006; Cartwright and Amery 2004), the first and second little pigs are not eaten by the wolf after he demolishes their homes. Rather, the first two brothers take refuge in the home of the third brother. After the wolf fails to blow down the house of bricks, he attempts to gain entry through the chimney and either dies, becoming food for the pigs (Cartwright and Amery 2004), or is burned and runs away, never to trouble the pigs again (Bas 1995/2006).
Some retellings of the fable deviate considerably away from the original versions. For example, *The True Story of the 3 Little Pigs!* is a parody told in the first-person by ‘Alexander T. Wolf’ (Scieszka 1989), who claims the entire incident was a misunderstanding and that the ‘Big Bad’ moniker is inappropriate. While suffering from a head cold, the wolf, who goes by ‘Al’, had been baking a cake for his grandmother and ran out of sugar. He sought to borrow some from the first pig, but a sneezing fit caused the house to collapse, killing the pig. The wolf ate the pig, so as not to waste any food, and proceeded to the second pig’s house where the same thing occurred: a sneezing fit caused a housing collapse, which killed the pig, whom the wolf ate—again so as not to waste food. Still without sugar, the wolf walked to the third pig’s house. The third pig insulted the wolf’s grandmother, which caused the wolf to lose his cool. As Alexander T. Wolf explains:

[w]hen the cops drove up, of course I was trying to break down this Pig’s door. And the whole time I was huffing and puffing and sneezing and making a real scene. The rest, as they say, is history. (Scieszka 1989: 28)

Alexander T. Wolf concludes:

The news reporters found out about the two pigs I had for dinner. They figured a sick guy going to borrow a cup of sugar didn’t sound very exciting. So they jazzed up the story with all of that ‘Huff and puff and blow your house down’. And they made me the Big Bad Wolf. That’s it. The real story. I was framed. (Scieszka 1989: 31)

Finally, in *Tell the Truth B.B. Wolf* (Sierra 2010), the Big Bad Wolf (who goes by ‘B.B. Wolf’) claims that he unintentionally destroyed the first pig’s house of straw while blowing on a dandelion puff; he accidentally demolished the second little pig’s house, maintaining that he was trying to blow out a fire that the pig had started with matches; and he misheard the third little pig and thought he was inviting him to ‘Climb up on the roof and slide down my chinny-chin-chimney’. The wolf is admonished for not telling the truth and is embarrassed. He explains that he has changed, selects a new middle name (so that he is now to be known as the ‘Big Bodacious Benevolent Bookish Wolf’) and apologises to the pigs. The pigs accept his apology, whereby the wolf exclaims, “‘friends’, ... ‘it’s not enough for me to say I’m sorry. I have to prove it and repair my reputation. Here is your very own piggyback mansion’”. The story ends with the pigs singing:

The Wolf was
mean and vicious.
He thought piggies
were delicious.
Then he lied
and told a story
that was wrong,
and he was sorry.
Now he's changed.
He's not pretending.
That's a very
Happy Ending!

I would suggest that we can read *The Three Little Pigs* as a climate change story. In the versions where the first two pigs are devoured (e.g., Halliwell-Phillips 1886; Jacobs 1890), the wolf represents the worst possible climate change scenarios, in which rising sea levels, desertification and shrinking freshwater supplies create millions of environmental refugees. In this social Darwinian struggle for survival, only those people in places with sophisticated disaster preparedness will persist. The first two pigs—who stand for the groups most vulnerable to climate (e.g., developing nations)—lack the wherewithal to migrate to the ‘heavily barricaded..."
borders of the planetary plunderers’ (Levene and Conversi 2014: 288) and perish. The third pig, with his ‘fortress mentality’ (White 2014), reflects the US and other advanced nations’ plans to ‘keep the “barbarians at the gate”’ (Levene and Conversi 2014: 288) in the event that the less fortunate—the world’s poor—make it that far.

In the versions where the first two pigs flee to the third brother’s house (e.g., Bas 1995/2006; Cartwright and Amery 2004), the wolf again represents the apocalyptic consequences of unmitigated climate change, causing large-scale refugee streams. Here, however, the third pig—the richer nations of the Global North—opens his arms and welcomes his siblings. In both the Halliwell-Phillips (1886) and Jacobs (1890), and the Bas (1995/2006) and Cartwright and Amery (2004) versions, the deleterious effects of climate change are distributed unevenly, but only in the latter versions do the wealthy states of the West, who are most responsible for the atmospheric build-up of carbon dioxide and other greenhouse gases, embrace their duty to the have-nots. The pigs continue to live together, rethink the global hegemonic system that created the ‘climate divide’, reduce inequalities in the economic, political and social realms, and redistribute vital resources.

In *The True Story of the 3 Little Pigs!,* the wolf represents climate change deniers (for a discussion, see Brisman 2012; Wyatt and Brisman 2017). Just as Al Wolf denies responsibility, blaming the death of the first two pigs on a poor choice of building materials (straw, sticks), climate change deniers reject scientific evidence that the Earth is warming as a result of human activities. Just as Al Wolf ‘appeal[s] to [a] higher loyalt[ y]’ (Sykes and Matza 1957:669)—his granny—climate change deniers privilege economic interests over and above anything else.

And in *Tell the Truth B.B. Wolf,* we can consider the wolf to be industrialized nations that heretofore have done little to help many nations that are threatened by various climate-related disasters. We (the wolf) have a chance at redemption: as the most culpable, we can help the most vulnerable and provide refuge when their homes are destroyed.

So, which of these versions is most prescient? Uncertainty raises its head, but what I wish to suggest is that there is utility in these multiple versions.

Kurtz and Upton (2017b: 544), in a recent article employing a narrative approach to understanding police culture, observe that ‘stories may prevent social change by further reinforcing dominate [sic] organizational values and behavioral practices’. If prevailing stories serve to maintain existing power structures and to perpetuate certain practices, then it becomes incumbent upon those seeking to challenge such dynamics and hierarchies—and to alter, disrupt or replace attendant customs and habits—to create, promote and promulgate different stories (or different themes, for that matter, as in the criticism above of Randall’s preoccupation with loss). These may come in the form of counternarratives—which refute, oppose or otherwise ‘go against’ the dominant narratives—or through multiple versions of the same dominant story, such that no one version maintains a stranglehold on a series of events or restricts too narrowly a set of practices, or dictates too rigidly a particular future orientation and course of action. If we read *The Three Little Pigs* as a climate change fable and embrace the different (and arguably competing) versions, we can challenge the pejorative view of loss, contest the perceived inevitability of climate change migration, and confront the notion of migration as a negative.

**Conclusion**

Barnes and Dove (2015: 3) remind us that:

climate change is not just about hotter temperatures and melting ice. It is also about stories and images, myth and reality, knowledge and ignorance, humor and tragedy—questions that are, at root, cultural in nature.
Given the extent to which climate change has become a central topic of green criminological scholarship (e.g., Agnew 2012; Brisman 2012, 2013, 2015b; Brisman and South 2015b; Hall and Farrall 2013; Halsey 2013; Kramer 2013; Lynch and Stretesky 2010; Mares 2010; McClanahan and Brisman 2013, 2015; Wachholz 2007; Wyatt and Brisman 2017)—and given that criminology, more broadly, is already invested in the project of exploring stories and images, myth and reality, knowledge and ignorance, and humour and tragedy of crime and harm—it follows that this study should include that of the narratives and stories (and representations, more generally) of climate change.

As this paper has attempted to demonstrate, stories help us explore ourselves—to understand who we are: ‘we become [the] stories that we know’ (Raitanen, Sandberg and Oksanen 2017: 4), or, as Kurtz and Upton (2017a: 13) put it, ‘the stories we tell shape ourselves and the world in which we live’. To this, we might add that stories help us to explore and understand who we are not. Raitanen, Sandberg and Oksanen (2017: 10) remind us that ‘telling stories is a powerful tool to communicate norms and values and to draw boundaries between “us” and “them”’. And along these lines, stories help us figure out what do to—we act in accordance with what we know—and, in this way, stories are ‘world-making vehicles’ (Ferraby 2015: 28). Taken together, in allegorising The Three Little Pigs as a story about climate change, we can see visions of our ecocidal tendencies and an array of our potential responses to distributional differences—allowing us to decide who we want to be and what we want to do: be people that assist those more vulnerable and less fortunate than ourselves or be people that build fortresses of bricks to exclude those forced from their homes. If people do, indeed, adapt their attitudes, beliefs and behaviours based on what they may have read (see Raitanen et al. 2017: 10), then reading the fable of The Three Little Pigs as an allegory of climate change may prove instructive in comprehending whether and the extent to which climate change induces migration, as well as our array of options for response. In the end, just as we are not obligated to one particular version of The Three Little Pigs, our lives in the face of climate change are not beholden to one particular future (story).

Correspondence: Dr Avi Brisman, Associate Professor, School of Justice Studies, College of Justice and Safety, Eastern Kentucky University, 521 Lancaster Avenue, 467 Stratton, Richmond, KY 40475, USA. Email: avi.brisman@eku.edu

1 ‘Introduction à l’analyse structural des récits’ was originally published in volume 8 of Communications in 1966. It was translated into English by Lionel Duisit as ‘An Introduction to the Structural Analysis of Narrative’ and published in volume 6, issue 2 of New Literary History in 1975. For a discussion, see Sandberg (2016: 153), who adds that ‘cultures and subcultures are created, upheld and crumble through the telling of stories. Myths, folktales and canonized stories of organized religion have systematically arranged meaning and enabled people to explore the differences between right and wrong’. For similar sentiments, see Brisman (2017b: 71n.1).

2 For a discussion of the ways in which narrative has been conceptualised in criminology, see Presser (2009: 182–186); see also Sandberg (2010: 451–452).

3 Presser (2016: 146) claims that one of the reasons that criminology ‘came to narrative years later than sociology’ (or psychology, for that matter) is that ‘criminology is especially “wedded to facticity” given that [its] ultimate referent is the wily offender’. ‘Offenders’ stories are taken as devices meant for manipulation’, Presser (2016: 146) contends, and, as such, ‘a perspective tied too closely to their stories would likely seem suspect’. Another reason may be that mainstream or ‘orthodox’ criminology, as it is sometimes called, privileges quantitative research methods (Lynch et al. 2017), dismissing the narrative data that are everywhere around us in the buildup to and aftermath of crimes’ (Maruna 2015: ix).

4 Following Presser (2010: 432), Presser and Sandberg (2015: 16n.1), and Sandberg and Tutenges (2015: 158)—and in an effort to maintain consistency with my prior work—I use the terms ‘narrative’ and ‘story’ interchangeably. For a discussion of my approach, see Brisman (2017b: 71–72n.2).

5 For definitions of the literary genre of ‘fable’, see, for example, Kennedy, Gioia and Bauerlein (2005: 60–61), and Mikics (2007: 115).

6 Many of such stories place obligations on young people and release adults of any accountability for the future of the biosphere: they ask the next generation to inform the present generation about how to consider and act in the interest
of future generations. Such processes of ‘adultification’ to use Hayward’s term (2012, 2013), discharge adults of their intergenerational responsibility, while working in tandem with processes of ‘infantilisation’—another Haywardian (2012, 2013) trope—and self-absorption to augment the risks and threats that jeopardize the existence of and quality of life for future generations.

According to Wilson (2014: 111), ‘just as there are two main components to the law and literature movement—first, the study of law in literature (concerned with artistic representations of legal issues), and second the idea of law as literature (concerned with the rhetorical analysis of legal texts)—the field of criminology and literature can take two comparable foci: crime in literature and crime as literature’. My interest here and elsewhere is with respect to environmental crime, harm and justice in literature.

Ross (2015: 367) notes that ‘because of the constant barrage of news, films, and television series, the distinction between what is real and what is fictional has become blurred. Indeed, some people believe fictional accounts more than actual true ones’. How prevalent this is may be subject to debate, but Aspden suggests that ‘films like Alan Clarke’s Scum and Made in Britain, novels like Brighton Rock and A Clockwork Orange, and music by The Smiths and Morrissey provided the stories that helped [him] make sense of [his] experiences’ of criminal involvement (Aspden and Hayward 2015:253).

The ‘technology will save us’ story has been the subject of much criticism. For example, as Amster (2015: 121–122) cautions, if we do not engage in both ‘technical adaptation’, such as building seawalls around coastal cities, replenishing mangroves and everglades as protective barriers, and ‘political adaptation’—including transforming social relations towards greater equity, containing and resolving environmental conflicts, and redistributing wealth and power—the result might be ‘militarized adaptation’, greater authoritarianism and even ‘climate fascism’. For a discussion of ‘technological fixes’ in Hollywood films, see Brisman (2015a).

The ‘technology will save us’ story has been the subject of much criticism. For example, as Amster (2015: 121–122) cautions, if we do not engage in both ‘technical adaptation’, such as building seawalls around coastal cities, replenishing mangroves and everglades as protective barriers, and ‘political adaptation’—including transforming social relations towards greater equity, containing and resolving environmental conflicts, and redistributing wealth and power—the result might be ‘militarized adaptation’, greater authoritarianism and even ‘climate fascism’. For a discussion of ‘technological fixes’ in Hollywood films, see Brisman (2015a).

9 The ‘technology will save us’ story has been the subject of much criticism. For example, as Amster (2015: 121–122) cautions, if we do not engage in both ‘technical adaptation’, such as building seawalls around coastal cities, replenishing mangroves and everglades as protective barriers, and ‘political adaptation’—including transforming social relations towards greater equity, containing and resolving environmental conflicts, and redistributing wealth and power—the result might be ‘militarized adaptation’, greater authoritarianism and even ‘climate fascism’. For a discussion of ‘technological fixes’ in Hollywood films, see Brisman (2015a).

10 Ferraby (2015: 40) proposes that ‘much can be drawn from what is absent in the landscape, or the process of disappearance, as what remains. This forces us to consider these vanishing landscapes as something positive, a way of thinking which goes beyond the simplicity of loss. By thinking in such reduced terms as “loss” and “change”, [we] risk overlooking some of the most dynamic and interesting aspects of sites and their ongoing histories’. Ferraby (2015: 41) acknowledges the emotional toll that coastal erosion can have on those whose residences, livelihoods and ways of living are put at risk—and there are no shortages of examples where this is the case (e.g., see Waldholz (2015) trope—and self-absorption to augment the risks and threats that jeopardize the existence of and quality of life for future generations.

11 Gillis (2017) notes that global warming could make agriculture and mining more feasible in countries with huge, frozen hinterlands, such as Canada and Russia. While this might suggest that these countries will benefit from global warming, Gillis (2017: sec 12) cautions that ‘both of those countries could suffer enormous damage to their natural resources; escalating fires in Russia are already killing millions of acres of forests per year’. Moreover, as Wallace-Wells (2017) contends, while a warmer climate might eventually make it easier to grow corn in Greenland, regions where cereal crops are produced today are already at optimal growing temperature, meaning that increased warming will make them less productive. Given that ‘places like remote Canada and Russia are limited by the quality of soil there; it takes many centuries for the planet to produce optimally fertile dirt’ (Wallace-Wells 2017; sec. 3), planting cereal crops in present-day tundra regions is unlikely to transpire before, or offset the loss of food from, the desertification of the world’s most arable land today. Wallace-Wells (2017: sec. 3) warns that ‘if the planet is five degrees warmer at the end of the century, we may have as many as 50 percent more people to feed and 50 percent less grain to give them’.

12 Estimating the number of people who will be displaced due to climate change becomes even more difficult when one considers the growing use of deportation and territorial exclusion in the European Union, Scandinavian countries and elsewhere as a part of an international regime of policing (see Aas 2015 for an in-depth discussion).

13 Byravan and Rajan (2017) make the distinction between ‘climate migrants’ and ‘climate exiles’. The former ‘are those who are displaced because of the effects of climate change, seen, for example, in parts of Africa and Asia when there is a drought or severe flooding’; the latter, climate exiles ‘are a special class of climate migrants who will have lost their ability to remain well-functioning members of political societies in their countries, often through no fault of their own’ (Byravan and Rajan 2017: 109). According to Byravan and Rajan (2017), while ‘climate migrants’ will tend to be displaced internally or will have the opportunity to return to their homes, ‘climate exiles’ will not be able to return to their nation-states because those nation-states (such as the island nations in the Pacific) may no longer be viable. For a discussion of ‘ecological migrants’—victims of global warming and other environmental problems’—see Ferrell (2018: 8).

References


