Kristjan Mavri, University of Ljubljana, Slovenia

Cormac McCarthy's The Road Revisited: Memory and Language in Post-Apocalyptic Fiction

Abstract

During times of existential unease, post-apocalyptic fiction imagines a depopulated world—a world destroyed by war, pestilence, ecocide, or cosmological judgment. It is frequently humanity's own hand that deals the blow. But the story does not end there, for the post-apocalypse is often a site of survival and of life in the aftermath and there is no situation like the bleak wasteland of Cormac McCarthy's The Road (2006). Set in a world laid to waste by an unnamed catastrophe, the novel examines what ecological, psychological, and sociological changes take place in the wake of the apocalypse. As the world "before" gives way to the world "after", so should memory of the past give way to the onset of the future. But one cannot write outside past and memory, just as one cannot write outside language. Try as it might to render a lifeless world, post-apocalyptic fiction—in spite of itself—invokes memory, undoes the ruin, and animates new life into being. Even a post-apocalypse as unforgiving as McCarthy's cannot be the end of the story, since it is, ultimately, itself a story.

Keywords: Cormac McCarthy, The Road, post-apocalyptic fiction, representational impasse, memory, storytelling

Apocalyptic anxiety has long been noted as a recurring historical pattern. Under the weight of existential pressures apocalyptic rhetoric, prophecies, movements, films, and literary texts proliferate. This fear for and fascination of imagining the end of days has ingrained itself into artistic imagination, with artists envisaging brave new worlds and wastelands. The turn of the millennium, Teresa Heffernan informs us, saw a major resurgence of apocalyptic narrative in film, literature,

science, politics, and religion, with "its strange pleasure in the catastrophic cleansing of the world, its reassuring division between the righteous and the damned, and its disturbing comfort in knowing absolute finality and order" (150).[1] The ideological underpinnings for this recent surge in popularity are plain to see—the aftermath of September 11, the war in Iraq, global warming, and the impending ecological disaster.

Cormac McCarthy's 2006 Pulitzer-winning novel The Road is a product of such troubled times. As Dianne C. Luce observes,

> *The Road had its genesis in a very specific moment, when McCarthy had checked into an old hotel in El Paso with his young son, John (probably soon after their relocation to Santa Fe, perhaps not long after September 11, 2001), and stood looking at the still city at two or three in the morning from the window of their room, hearing the lonesome sound of trains and imagining what El Paso "might look like in fifty or a hundred years." "I just had this image of these fires up on the hill and everything being laid waste and I thought a lot about my little boy. And so I wrote those pages and that was the end of it." (9)*

McCarthy's remarks are informative of how the anxieties of a specific historical conjuncture beget future (post)apocalyptic representations, and, though the novel should not be reduced to a positivist paradigm, it is hard to avoid biographical readings.[2] After all, the narrativization of existential fears may be seen as an effort to come to terms with a crisis-ridden present and to move toward a (better) future.[3] Post-apocalyptic fictions can therefore be interpreted also in terms of their historical specificity and not merely as universal cautionary tales.

In his seminal The Sense of an Ending, Kermode laments that in popular culture the term apocalypse is understood to be equivalent to catastrophe. He goes on to demonstrate that, owing to the widespread influence of the Bible, the apocalypse is always bound up with ideas of renovation and revelation in the history of its religious and secular usage.[4] As "a familiar model of history", the biblical model has been fixed deeply into the way Western cultures make sense of reality, that is, as progressing from a beginning toward an inevitable end (6–7). Western readers expect literary texts to mirror their perception of the world, desiring conventional resolution and closure. For such readers, and for Kermode, fictional endings are "mini expressions of a faith in a

higher order or ultimate pattern that though itself will remain perhaps forever obscure, nevertheless, lends a sense of purpose to our existence in the world" (Heffernan 4).

What to make of post-apocalyptic fictions then? How can they consolidate the schematic expectations of the reader and the sense of ultimate closure if they, by definition, take place "after the end"? James Berger points to the oxymoron inherent in this phrase, reasoning that "[b]efore the beginning and after the end, there can only be nothing. At the beginning, something begins; and at the ending, it ends" (xi). We know this is not the case, however, as even the biblical eschaton is followed by the New Jerusalem descending from heaven. By the same token, secular eschatology almost invariably anticipates a post-apocalyptic world, prompting Berger to collapse apocalyptic and post-apocalyptic writing into a single generic category.[5]

> *The end itself, the moment of cataclysm, is only part of the point of apocalyptic writing. The apocalypse as eschaton is just as importantly the vehicle for clearing away the world as it is and making possible the post-apocalyptic paradise or wasteland.*

> *Temporal sequences become confused. Apocalyptic writing takes us after the end, shows the signs prefiguring the end, the moment of obliteration, and the aftermath. The writer and reader must be both places at once, imagining the post-apocalyptic world, then paradoxically "remembering" the world as it was, as it is. (6)*

But where Berger truly shines is in his observation that if an end-time disaster were to engulf us we would have no means of knowing it, let alone representing it in a unified narrative. In order to depict a cataclysmic aftermath and its tribulations one would have to imagine what is unimaginable, know what is unknowable; this is what Berger calls the "post-apocalyptic representational impasse", arguing that "it is impossible to write absolute alterity. The other can only be inscribed in an already existing discourse" (13). To put it differently, apocalyptic events cannot be adequately represented, for we lack the means to symbolize them. Instead, we project our (eschatological) anxieties and inferences from the past onto the future. "Everything after the end, in order to gain, or borrow, meaning, must point back, lead back to that time" (xi). Post-apocalyptic fictions, then, are not foresights but retrospections; not revelations but replications—oblique or explicit—of past fears, traumas, and memories.

The ability to symbolize the anxieties of Western societies is both the essence of and reason behind the popular appeal of the post-apocalyptic genre. It affords readers a glimpse of futures based on fears and fantasies derived from the sociopolitical context.[6] "What is there left after the end?" Berger asks. He argues there are only two possibilities: "Paradise or shit" (16). McCarthy's The Road firmly falls within the latter category. In it we follow an unnamed man and boy, father and son, on a desperate journey across a cold, devastated, corpse-strewn landscape, some years after an unnamed cataclysm has obliterated all trappings of civilization and society from the face of the earth, and virtually all life. The "cauterized terrain" (McCarthy 14) is now peopled by scavengers, marauding bands of cannibals, and corpses. It is a nightmarish site, where the world has ceased to be.

The novel operates on two ideological and stylistic levels. On the one hand, it projects a future that forecloses the possibility of regeneration. The relationship between the world and the language that renders it is ruptured, since language can no longer adequately codify the barren and blasted physical and psychological landscapes of the wasteland the protagonists navigate. Memories of things, culture, religion, goodness are all buried beneath the ashes of a vanished world. The end of the world is also the end of the word. A new language must emerge—one that would mirror the desperate situation humankind has found itself in. On the other hand, the detritus of the past is still able to catalyze memories. Language, no matter how dislocated and transmogrified, works in the ironic service of the portrayal of the world as it once was. And amidst the chaos that sundered human civilization, the man and the boy somehow manage to maintain their moral integrity and thereby their humanity, an ardenthearted goodness and vitality that even hint at possible renovation. This article, then, examines the ways McCarthy calls into question what language and memory can and cannot do, as he "simultaneously destroys and creates the world through language" (Walsh 290).

"[E]veryone knows how the world ends", Michael Chabon tellingly declares in his oft-quoted review of The Road—"First radiation, plague, an asteroid, or some other cataclysm kills most of humankind. The remnants mutate, lapse into feudalism, or revert to prehistoric brutality … while tiny noble bands cling to the tatters of the lost civilization" (n. pag.). We know this because post-apocalyptic narratives are haunted by our current historical moment. This is perhaps the reason

why The Road leaves the cause of the global catastrophe ambiguous—we find it easy to fill in the blanks with whatever (man-made) pestilence, doomsday device, or cosmological calamity happens to be threatening us in our current historical moment.[7] Not disclosing the source of the disaster also suggests that no possibility exists of having prevented it from happening; one way or the other, the ultimate fate of mankind is sealed.[8] This sets McCarthy's novel apart from earlier works of post-apocalyptic fiction in that it offers no overt social criticism or political commentary.

The resulting landscape through which the The Road winds is an "ashen scabland" (McCarthy 16)—scorched, dead, and sterile. The bleakness and monotony of the ravaged world and the pared down existence of the protagonists McCarthy evokes through spartan syntax, limited diction, and narrative repetition; punctuation is used sporadically, proper nouns are seldom capitalized, clauses are mostly joined by "and". Dialogue in particular is delivered in trimmed sentences and is unimpeded by quotation marks:

You think we're going to die, dont you?

I dont know.

We're not going to die.

Okay.

But you dont believe me.

I dont know.

Why do you think we're going to die?

I dont know.

Stop saying I dont know.

Okay.

Why do you think we're going to die?

We dont have anything to eat.

We'll find something.

Okay. (McCarthy 100)

The lack of hyperbolic, or even traditional, language underscores the extremity of the situation; it engenders a sense of denial—stylistic and narrative—of life. If the world has been burned to a

cinder, language must mirror the natural devastation, social breakdown, and desperation of survival. Even at his most lyrical—when McCarthy deploys archaisms and neologisms in his descriptive passages, words like “vestibular”, “parsible”, and “illucid”, he does so accurately and within (relatively) simple syntactic structures:

He rose and stood tottering in that cold dark with his arms outheld for balance while the vestibular calculations in his skull cranked out their reckonings. An old chronicle. To seek out the upright. No fall but preceded by a declination. He took great marching steps into the nothingness, counting them against his return. Eyes closed, arms oaring. Upright to what? Something nameless in the night, lode or matrix. To which he and the stars were common satellite. Like the great pendulum in its rotunda scribing through the long day movements of the universe of which you may say it knows nothing and yet know it must. (15)

Radiant and sullen, this post-apocalyptic poetic is formed out of the need to convey the hellish reality, which is a world like ours and yet completely different.

In a world unhinged by overwhelming destruction, the possibility of a unified representation through the language of the old order is impaired significantly. Not only is language unable to encapsulate the traumatic experience of the demise of nature and civilization, but so much of what language once signified is in fact lost:

The world shrinking down around a raw core of parsible entities. The names of things slowly following those things into oblivion. Colors. The names of birds. Things to eat. Finally the names of things one believed to be true. More fragile than he would have thought. How much was gone already? The sacred idiom shorn of its referents and so of its reality. (88–89)

The material referents having been destroyed, the corresponding signifiers soon follow down the road to oblivion, disappearing from the world’s ever diminishing vocabulary and memory—“The last instance of a thing takes the class with it” (28). The fractured sentences and terse dialogue thus mirror a world that is emptied and dead.

McCarthy’s prose also signals the urgency and desperation that the protagonists face: there can be nothing inessential on the road, only what furthers your survival. To that effect, the man even discards the only picture he has of his dead wife:

He'd carried his billfold about till it wore a cornershaped hole in his trousers. Then one day he sat by the roadside and took it out and went through the contents. Some money, credit cards. His driver's license. A picture of his wife. He spread everything out on the blacktop. Like gaming cards. He pitched the sweatblackened piece of leather into the woods and sat holding the photograph. Then he laid it down in the road also and then he stood and they went on. (McCarthy 43)

The failure of "old" language and its concomitants to relate the truth of the natural and civilizational breakdown is manifest in the following passage, when the protagonists enter the ruins of what was once a library:

… he'd stood in the charred ruins of a library where blackened books lay in pools of water. Shelves tipped over. Some rage at the lies arranged in the thousands row on row. He picked up one of the books and thumbed through the heavy bloated pages. He'd not have thought the value of the smallest thing predicated on a world to come. It surprised him. That the space which these things occupied was itself an expectation. He let the book fall and took a last look around and made his way out into the cold gray light. (McCarthy 187)

If books engender expectations of better worlds, better futures then the man and boy bear witness to their failure. Thomas A. Carlson writes that The Road undertakes an examination of "[w]hat become [sic] of time and language, of life and story, in the presence of such darkness, in the seeming collapse of the world … What role would memory and expectation—the marking of years and ages—have played in sustaining the time and language of a world sufficiently living to bear (or be born by) the telling of a story" (55). The answer McCarthy provides is that cultural artifacts—language, music, religion—and memories are relics of a bygone age and as such useless in making sense of the new reality. When, by the campfire, the man recounts to the boy "[o]ld stories of courage and justice as he remembered them" (41), "the reader becomes aware that it is not only the stories that exist purely in memory—in McCarthy's wasteland the ideals of courage and justice themselves seem to be disappearing" (Gallivan 103). If at first the boy pleads with his father to narrate one of his tales, he begins to question them as time progresses and ultimately rejects them:

You always tell happy stories.

You dont have any happy ones?

They're more like real life.

But my stories are not.

Your stories are not. No.

The man watched him. Real life is pretty bad? (268)

To the boy, who was born after whatever catastrophe ended general human civilization, such tales are suspect because they do not mirror his reality and thus hold no validity. For Christopher J. Walsh, "This provides the father with another existential challenge as at times he is unable to evoke 'the richness of a vanished world' … for the boy as it slowly fades from his memory, and he experiences a philosophical dilemma … as he agonizes over how he can possibly 'enkindle in the heart of the child what was ashes in his own'" (268). That the boy cannot produce narratives with "happy endings" draws attention to the profound achievement of the novel in making us "re-think our understanding of language" (293). It exposes the problematic relationship between language and reality—that without immediate referents in the existing world, words are empty signifiers.[9]

Yet, as Chabon brilliantly points out, McCarthy ends up ensnared in "the paradox that lies at the heart of every story of apocalypse. The only true account of the world after a disaster … would be a book of blank pages, white as ash. But to annihilate the world in prose one must simultaneously write it into being" (n. pag.). Put differently, post-apocalyptic fiction, like any other fiction, operates within the bounds of language, and the language of The Road, however bleak and transmogrified, is productive of meaning. Thus, "efforts to tell of things that have been lost" irrevocably still carry echoes of their existence (Walsh 268). As McCarthy's language reflects a fractured world, it concomitantly offsets the destruction it renders, reconstructing and reaffirming forlorn images and memories—the very act of writing "undo[es] the death it deals" [Chabon n. pag.]. Post-apocalyptic fiction thus reaches an inevitable impasse; something always remains "after the end" and that remnant—rubble, mummified corpses, water-soaked books, a can of Coca Cola—evokes the past, reverses the ruin, and animates memory.

Consider the following description of nature: “The next day they headed inland. A vast low swale where ferns and hydrangeas and wild orchids lived on in ashen effigies which the wind has not yet reached” (276, my emphasis). Just as the two survivors carry on down the road, the remainder—physical and linguistic—persists and serves as a reminder, a representation of that which defies forgetting. This leads the reader to invoke spatial identity and memory even when the narrative claims that “[t]here is nothing to see”:

On the far side of the river valley the road passed through a stark black burn. Charred and limbless trunks of trees stretching away on every side. Ash moving over the road and the sagging hands of blind wire strung from the blackened lightpoles whining thinly in the wind. A burned house in a clearing and beyond that a reach of meadowlands stark and gray and a raw red mudbank where a roadworks lay abandoned. Farther along were billboards advertising motels. Everything as it once had been save faded and weathered. (8)

There is much to see, as the images of what “once had been” shimmer vividly in the reader’s mind before McCarthy razes them. The wasteland, because it necessarily rendered through language, still bears a fleeting semblance of life. Early on in the novel, the man finds a can of Coca-Cola, possibly the last one anywhere, at an abandoned supermarket and gives it to the boy, who asks, “What is it, Papa?” (23). For the boy, unfamiliar with many of the ideas, experiences, material goods, and even language that define contemporary American society (the man has to explain to him the idiom “as the crow flies”, since no crows exist any longer), Coca-Cola is just “a treat” (23). But for the man and the reader it fizzes with nostalgic reminiscence while it also invites the reader to imagine the link between “the excessive—yet enjoyable—consumption signaled by the can of Coke and the horrific cannibalistic consumption of the novel’s present” (Donnelly 72), invoking and inverting such Coca-Cola slogans as “America’s favorite moment”.

In Ibarrola-Armendariz’s reading, which echoes Chabon’s, the novel “evokes through its deliberately accessible and controlled language the very things it seems to abnegate. Though the father finds his power to build stories constantly diminished and thwarted, it is only storytelling that can provide their [the protagonists’] journey with some sense and significance” (7). Put differently, acts of storytelling and memory keeping are a site of verification in that they lend reality to the

objects and ideals they render. The man tells the boy stories in an effort to reaffirm their status as "the good guys", that is, people who do not eat people. But as their journey progresses, the boy sees his father treat fellow travelers with increasing indifference or even cruelty, such as when he forces the thief who stole their shopping cart along with all their possessions to remove his clothes at gunpoint and then leaves him on the road, saying, "I'm going to leave you the way you left us" (McCarthy 217). Such episodes often make the boy cry and lapse into long periods of silence. To his father's assurance that he would never have killed the thief, the boy responds, "But we did kill him" (219), implying that he claims responsibility both for his and his father's actions. He hence also rejects his father's tales on an ethical premise:

> Those stories are not true.
>
> They dont have to be true. They're stories.
>
> Yes. But in those stories we're always helping people and we dont help people. (McCarthy 268)

Driven by near-religious conviction to keep his son from harm's way, the man insists on their survival at the cost of moral corrosion: "My job is to take care of you. I was appointed to do that by God. I will kill anyone who touches you" (65). The boy's moral goodness, however, is unwavering and fuelled by an inherent desire to help the troubled individuals they encounter in spite of his own needs![10] With his dying words the man tells his son, "You're the best guy. You always were" (235), thereby acknowledging the moral code as having been passed on. Goodness and hope do reaffirm themselves through the attempts of the protagonists "to do justice where no justice is either demanded or even possible" (Snyder 85) and the narrativization of their deeds. These stories of goodness and beauty are symbolized by "the fire" they carry inside them—a fire that represents hope, humanity, the will to stand against insurmountable odds without abandoning the most basic principles of morality and resorting to malicious means to survive. And though the man may at times forget his own teachings, the boy always remembers. That the fire is passed from father to son not only by virtue of example but also through stories is proof again that language has retained the power to verify objects and ideas thought lost.

Seemingly lost are also the brook trout presented in the enigmatic and mysterious epilogue:

Once there were brook trout in the streams in the mountains. You could see them standing in the amber current where the white edges of their fins wimpled softly in the flow. They smelled of moss in your hand. Polished and torsional. On their backs were vermicular patterns that were maps of the world in its becoming. Maps and mazes. Of a thing which could not be put back. Not be made right again. In the deep glens where they lived all things were older than man and they hummed of mystery. (286–287)

This pastorally sublime memory is an image that is to be read beyond the temporal frame of the narrative, though it does call to mind an episode early in the novel when the man stands on a stone bridge "[w]here once he'd watched trout swaying in the current, tracking their perfect shadows on the stones beneath" (30). Unlike most memories in the novel, whose accuracy is sometimes called into question (the man cannot remember his wife's scent, for instance), the recounting of the final image of brook trout is perfect, "with everything intact, scent and all" (Hage 104). The coda suggests that there is a natural order in the world that predates humankind and is inaccessible to us, for it is beyond our meaning-making systems, beyond language even. And while it forecloses the possibility of natural regeneration, it hints, as Matthew Ryan notes, at "a not-yet-achieved consciousness" (qtd. in Hage 145); it is, for now, beyond the realm of human knowledge, but is perhaps obtainable in the future. At the very least, it reaffirms the persistence of memory, memory of "things of grace and beauty such as that once holds them to one's heart" (McCarthy 54), and the ability of language to render such recondite images.

As I have suggested in my reading of The Road, the novel succumbs to the same paradox that characterizes post-apocalyptic fiction; it conceives of post-apocalyptic landscape as void of referents, empty of meaning, discouraging of hope. Yet the brush the artist uses to paint the nightmare is also what betrays his vision—language. Language carries with it vestiges of the past, memories of things thought long gone, traces of beauty. The remnant, battered, charred, or blackened though it may be, still glows beneath the ashes. A glimmer that, if properly tended to, may grow into a fire. The metaphorical fire of humanity the man and the boy carry is transmitted and sustained through memories and stories of objects and ideals the novel takes great pain to abnegate. The Road is therefore a highly ironic work, proclaiming the end of language, of beauty, and of ethics, all the while acting as a witness against itself. The simultaneously violent and

beautiful poetic disconfirms the paradigmatic expectations of an ultimate ending, the kind of narrative closure or revelation Kermode celebrates in his theoretical musings. In post-apocalyptic fiction "[t]he end is never the end", Berger writes (5). And so, too, does The Road leave the ending open. We do not know what will become of the boy, nor what will become of the world. But in its resurrection of memories and language, the novel suggests there may be hope for us yet.

Works Cited

Berger, James. After the End: Representations of Post-Apocalypse. Minneapolis: University of Minnesota Press, 1999. Print.

Carlson, Thomas A. "With the World at Heart: Reading Cormac McCarthy's 'The Road' with Augustine and Heidegger." Religion & Literature 39.3 (2007): 47–71.

Chabon, Michael. "After the Apocalypse." The New York Review of Books 54.2 (2007): n. pag. Web. 12 Dec. 2012.

Donnelly, Brian. '"Coke Is It!": Placing Coca-Cola in McCarthy's THE ROAD.' The Explicator 68.1 (2010): 70–73.

Gallivan, Euan. "Compassionate McCarthy?: The Road and Schopenhauerian Ethics." The Cormac McCarthy Journal 6 (2008): 98–106. Print.

Hage, Erik. Cormac McCarthy: A Literary Companion. Jefferson, NC: McFarland, 2009. Print.

Heffernan, Teresa. Post-Apocalyptic Culture: Modernism, Postmodernism and the Twentieth-Century Novel. Toronto: University of Toronto Press, 2008. Print.

Ibarrola-Armendariz, Aitor. "Cormac McCarthy's The Road : Rewriting the Myth of the American West." European Journal of American Studies Special issue (2011): 1–13. Web. 15 Jan. 2013.

Kermode, Frank. The Sense of an Ending: Studies in the Theory of Fiction with a New Epilogue. 2nd ed. New York: Oxford University Press, 2000. Print.

Luce, Dianne C. "Beyond the Border: Cormac McCarthy in the New Millennium." The Cormac McCarthy Journal 6 (2008): 6–12. Print.

McCarthy, Cormac. The Road. New York: Vintage International, 2007. Print.

Varley, John. “The Manhattan Phone Book (Abridged).” Blue Champagne. New York: Ace Books, 1986. 206–210. Print.

Walsh, Christopher J. In the Wake of the Sun: Navigating the Southern Works of Cormac McCarthy. Knoxville: Newfound Press, 2009. Print.

[1] Millennial dates have long conveniently served apocalyptic prophecies, Frank Kermode observes (184–191). Incidentally (and ironically), I am writing this article in December 2012, when the end, this time according to the Mayan calendar, is nigh (again).

[2] Özden Sözalan also reads The Road as a post-9/11 narrative in his 2011 The American Nightmare.

[3] The issues of representing, diagnosing, and remedying the effects of apocalyptic catastrophe are the kernel of James Berger's After the End: Representations of Post-Apocalypse (1999).

[4] The word "apocalypse", derived from the ancient Greek "apokalupsis", stands for "revelation or unveiling of the true order" (Heffernan 4).

[5] Berger lists Gore Vidal's Kalki (1978) and Mary Shelley's The Last Man (1826) as notable exceptions. Nevil Shute's On the Beach (1957) and John Varley's "The Manhattan Phone Book (Abridged)" (1984) also end in a bleak resolution.

[6] In in his short story "The Manhattan Phone Book (Abridged)", John Varley describes how post-apocalyptic narratives fulfill our taste for adventure: "We all love after-the-bomb stories. If we didn't, why would there be so many of them? There's something attractive about all those people being gone, about wandering in a depopulated world, scrounging cans of Campbell's pork and beans, defending one's family from marauders. Sure it's horrible, sure we weep for all those dead people. But some secret part of us thinks it would be good to survive, to start over. Secretly, we know we'll survive. All those other folks will die. That's what after-the-bomb stories are all about" (210).The ending of his short story, however, plays upon our generic expectations: "This is the only true after-the-bomb story you will ever read. Everybody dies" (210).

[7] The unspecified cataclysm has been the subject of varied interpretations, with many critics and reviewers identifying nuclear war and asteroid impact as the two most likely possibilities.

[8] In a 2007 interview for the Rolling Stone magazine McCarthy dismissed the notion that humankind will live to face an environmental cataclysm: "We're going to do ourselves in first" (Kushner).

[9] For an insightful inquiry into the novel's preoccupation with the illusory nature of language see Linda Woodson's "Mapping The Road in Post-Postmodernism".

[10] This and the biblical overtones with which the father imbues his son have led many reviewers and critics to read the two as the Father and Son. See, for instance, William Kennedy's review of the novel in the New York Times Book Review.

Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License