



An autoethnography about writing an eco-fiction on the Flemish circular economy

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ARTICLE INFO

Keywords:

Circularity
Collective imagination
Eco-anxiety
Ecology futures
Lived experiences
Storytelling

ABSTRACT

Sustainability and a less resource intense way of living is increasingly becoming a necessity in the wake of increased environmental degradation and global warming. In this context, the concept of circular economy becomes relevant. The study presents how an eco-fiction can help garner more support for circular economy among citizens by making the abstract idea of circular economy more relatable and accessible. The paper is an auto-ethnographic report on the process of writing an eco-fiction. It is a novel study that presents insights into the writing process and the relationship between own lived experiences of circularity (including disappointments and realisations) on the story choices. The study additionally situates itself in published works on the circular economy and literary theory.

1. Introduction

'One might say that human society has two boundaries. One boundary is drawn by the requirements of the natural world and the other by the collective imagination' (Griffin, 2005)

This quote by Susan Griffin highlights the two boundaries that lies at the heart of this manuscript: first, the planetary boundaries within which we as humans have to live to reduce the risks of a collapse of the planetary ecosystem (O'Neill D.W., 2018; Rockström et al., 2009), i.e., the boundaries presented in the sustainability principles of the strategic sustainable development framework (Broman & Robèrt, 2017). Second, the lack of collective imagination which is needed to find solutions, meanings, and solace for the different needs and crises at both the society and individual levels.

Regarding the boundaries related to the requirements of the natural world, various agendas and concepts have been spearheaded by futurists. Recently, increased attention has been placed on the abstract concept of circular economy (CE) - a set of principles and practices to close, narrow, or slow down material loops with the aim to reduce global and local sustainability pressures and degradation by the member states of the European Union (Bocken et al., 2016). CE is a system in which products, components, and materials are used multiple times through reuse, remanufacturing, and recycling (Kirchherr et al., 2017). This manuscript sees CE primarily as an abstract concept or ideology (Hobson, 2019) that envelops principles, practices, and processes which ensures that materials serve society for as long as possible without losing value. Discourse and imaginaries about CE by governments (cities, nations, regions) includes the creation of new jobs and economic value, as well as reduction of environmental impact like greenhouse gas emissions (Fratini et al., 2019). This paper does not engage with the body of research providing evidence whether these promises are fulfilled through CE, rather it addresses the need for communication tools to accelerate the transition toward a full CE, tapping into the second boundary, that of public imagination. One of the problems that this paper addresses relates to the creation of a concrete imagination of

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<https://doi.org/10.1016/j.futures.2022.103000>

Received 27 May 2021; Received in revised form 4 January 2022; Accepted 18 July 2022

Available online 21 July 2022

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circularity. Imaginaries and discourses on circularity often limit itself to the abstract level and are contradictory (Bauwens et al., 2020). Moreover, it is often not clear to many stakeholders and citizens what concrete and everyday CE can mean, as most imaginaries and designs on CE are about scenarios, plans, strategies, designs, and business models, which may be overly abstract for citizens. Therefore, everyday stories about circular consumption that citizens can relate to needs to be produced to hasten the transition to circularity (Hobson 2020). However, research and documentation on the impact of such stories remains underexplored.

My interest in the lived experiences of circularity arose from an imagination exercise that started in 2019: writing an eco-fiction about CE. This exercise was the culmination of a learning journey on how storytelling could be an instrument for communicating sustainability (Richter et al., 2019), and therefore circularity; which are underexplored topics in environmental communication (Amirova, 2021).

Fiction is a promising medium, as it offers accounts of agency and focalised perspectives that helps to imagine circularity in everyday contexts (Nikoleris et al., 2017; Veland et al., 2018). Veland et al. (2018) argues that fiction can address the narrative deficits in the communication on sustainable transition. Additionally, Nikoleris et al. (2017) demonstrates how fiction can make circular futures closer and personal to readers.

Although previous scholars (Nikoleris et al., 2017; O'Neill K, 2018) have investigated the impact and meaning of existing works of fiction on sustainability, none have created an eco-fiction and described the challenges of writing such a work, navigating the balance between not only narrative but also ecological choices. This manuscript offers an auto-ethnographical approach to writing an eco-fiction, which can increase our understanding of the role of storytelling in achieving sustainability. An autoethnographic narrative entails a combination of describing, analysing personal lived experience and situatedness (autobiography), and linking it with observations on the lived experiences of others in other cultural contexts (ethnography) (Ellis et al., 2011). As per the autoethnographic approach, stories are valued as a medium over theories (Ellis et al., 2011), therefore, I took a very personal approach in sharing my own story of writing a fiction for CE, by describing my desires, ambitions, fears, disappointments, and other emotions about fiction as a process and a product. I do this by reflecting on the process of writing a novel and zooming in on the focalization - a powerful tool in narratology for creating meaning to the reader (Nikoleris et al., 2017), as focalization allows the reader to shapeshift into the protagonist and see the CE world and story through their eyes. Moreover, this manuscript aims to show how difficult it is to imagine a CE and bridge the gap between the abstract concept of circularity and its concrete everyday meaning. I will link the impact of my own lived experiences of circularity (including disappointments and realisations) with the story choices and explain why the writing of a CE fiction necessitates an engagement with place/context and situatedness. This is necessary as CE must be located somewhere and make sense before it can be accepted and integrated into everyday political choices.

2. Materials and method

2.1. Background about the auto-ethnographer and her context

Flanders, a region in Belgium, is a pioneer of CE (OECD, 2021). Although CE has been on the agenda of some stakeholders -mostly academics- for over two decades, CE was only recently introduced into Flemish policy and communication. Since 2016, different programs and organisations that have been working with CE principles and practices evolved into the Circular Flanders, which got embedded with the Public Waste agency of Flanders (OVAM). As part of its Vision 2050, the Flemish Government has appointed this agency to pursue CE as a transition priority by increasing stakeholder and citizen engagement (Vlaanderen Circulair, 2020). In 2017, the newly established agency Circular Flanders launched a first call for grants and organised a bootcamp, with the hope that the participants would submit a project proposal. After observing different interviews and case studies of CE pioneers in Antwerp and surroundings, the bootcamp participants understood that many citizens either did not know about CE or were not purchasing circular products and services despite the growing availability of scientific content and policy briefs on the topic (Camacho-Otero, Boks, and Pettersen 2018).

The participants of this bootcamp submitted a proposal to disseminate CE's different aspects and dimensions to a broader audience through storytelling; where the pitch was to sell not materials, but stories (Vlaanderen Circulair, 2017). The grant application of Bold Branders was approved at the end of 2017 and the collective Bold Branders was started in 2018. After small experiments with some storytelling mediums, it was decided in 2019 to publish a fiction on CE in Flanders.

The idea for a CE fiction has been in my mind for some time, but I was unsure of my competence. The ambition to create a tool that would promote CE in Flanders and even beyond, and my personal desires to be an author and write a good story, were both at stake. This insecurity led me to search more for theories that would aid me in making the narrative choices. In the meantime, I also struggled with the disappointments of my learning journey about the contested concepts of CE (Korhonen et al., 2018).

Als Meubels Konden Spreken (In English: if Furniture could speak) was released in the fall of 2019, as December 2019 was the deadline set by the funding providers. This paper is the result of an inquiry in the form of writing (Richardson, 2003) an online diary with observation, methodological, theoretical, and personal notes that was maintained throughout the period from the grant application (September 2017) to the closing date (January 2020). Comments from proof-readers received during the writing of the fiction book were also documented. The editing, rewriting, discussions on selected notes (observational, methodological, theoretical, and personal) with peers, finding additional (mostly theoretical) notes, and getting new insights from reviewers was - to borrow Haraway's metaphor- like a 'composting process' (Haraway, 2016), that resulted firstly in the fiction book, and 2.5 years later in this auto-ethnographical manuscript.

The theoretical notes were mostly quotes and ideas from studies on narrative theories and Jungian psychology (Campbell, 2008; Estes, 1992; Murdock, 2020), ecopsychology and mythology (Blackie, 2019; Haraway, 2016), radical ecology (Naess, 1990),

eco-linguistics (Stibbe, 2020), pedagogy (Freire, 2018), mobilization of citizens theories (Ganz, 2010), communication in sustainable development (Cash et al., 2003), and change management theories (Senge, 1997), gathered between 2018 and 2021. These notes helped me reflect on certain writing choices. The critical literature review holds a ‘risk of bias’ that is less likely in a systematic literature review, it was nonetheless used as it allows for the combination of insights and perspectives derived from different disciplines and theories (Snyder, 2019). A thorough literature review of works by academic experts in narratology and marketing, and innovation management and CE, encountered in previous, more traditional academic research projects were conducted prior to writing the manuscript. The revisions of this draft led to more insights and reflections, thanks to the inputs and perspectives of the reviewers.

2.2. Summary of ‘Als Meubels Konden Spreken’

After 3 years of working in Mali, Antje, a psychologist, returns to Belgium because of a family trauma; her brother, Arne, tried to commit suicide and is now recovering in a psychiatric institution. Her mother died long ago, and her father is an absent figure in their life.

Antje decides to root herself again in Belgium where she gets introduced to CE practices and principles through her new job and the decisions she must make in the family sphere. She had taken the job in Mali to cope with the loss of her grandmother. Her grandmother’s now vacant house is still in her ownership, maintained by an weird neighbour. Her grandmother who had filled the gap left by her dead mother, meant a lot to her. Antje initially wanted to sell the empty house, however, her stepmother, Nadia, brings her in contact with a reuse centre and plans to have it cleaned up. The cleaning process forces her to rethink the meaning of the house, with the various articles in the house reminding her of her grandparents’ practices that were ‘circular’. Furthermore, Antje starts perceiving the non-human beings around her in a different light.

Antje takes a job at a furniture company, arranged with the help of one of her old friends. The company is embarking on a circular strategy workshop, and she must help design a communication strategy for this transition. The main character raises questions about business models such as subscription models, which can be tricky for people in precarious situations. The focus of this book is on wood as a material, and furniture and housing as sectors.

In the meantime, she has conflicts with her recovering brother that challenges her values and norms of success. Eventually, the broken family band is repaired and she introduces him to the reuse centre, where he finds a new purpose. However, an accident happens that leaves him hospitalized. This lets her reflect on issues like safety and other social impacts, and leads her to decide to not support a company without corporate social responsibility.

The closing sentence of the book shows how she becomes content with what she has, having a good network of people supporting her ideas on social circular economy, reassesses what she needs, and learns where to have things fixed; rather than constantly desire for more. Table 1 repeats the most important characters for the autoethnography.

2.3. A fictionalised self-dialogue¹

‘When did you first hear about CE?’

‘During my Master’s program. I studied Industrial Ecology, a field which is deeply interlinked with CE (Ghisellini et al., 2016)’.

‘This was not your first Master studies’.

‘*Indeed, five years earlier, I had started a masters in management, but dropped out because I did not find meaning in that discipline. I worked in a factory, did other occasional work, and travelled a lot to give myself time to figure out what would give me meaning. I was the first one in my family who had the abilities and finances to go to university. My family was conservative and from the lower middle class; they value having a job highly, even if it is not well-paid. But the time abroad helped me to break free from these expectations. I did vocational training for a year on filmmaking and writing. I thought I was on the right track, however, while working in the communication sector, I did not often like the stories and values that we visualised, and I quit to take a new job in the tourism sector. There I became frustrated with all the waste production in the sector. I still remember how upset I was every time I dragged full bags of trash to the dumpsters in a parking lot in a Spanish coastal town, as I did not know how to reduce that. Therefore, I decided to find a graduate program which was about waste prevention’.

‘And there you heard about CE’.

‘Yes, I was an enthusiast back then’.

‘Not anymore?’

‘It depends how you define it. CE is a boundary object and can be interpreted and imagined in different ways’.

‘What disappointed you?’

¹ This subsection is more experimental to illustrate the self-dialogue that an author with her inner critic and should be read as ‘material’ rather than finding.

Table 1
Selected characters of 'Als Meubels Kondens Spreken' for the autoethnography.

Antje	Main character, a psychologist who is coping with grief
Arne	Brother of the main character, who has an extremely low self-esteem
Nadia	Stepmother of the main character

'I am conscious that I come from a family where doing jobs and having skills which are highly valorised. During my Master thesis I realised that I am surrounded by stories about lived experiences, however, they were not marketed in the reports and science I was reading. This forced to start thinking about the missing social component of CE'.

I drank from my tea. The sweet taste of honey – I was grateful the bees were still here, although there have been so many stories about their extinction, not only in fiction, but also in science. These stories were giving me eco-anxiety.

'Did you get bad comments'?

'Yes and no, one of the critiques is that this book 'explains too much'. The editor challenged me to write it less 'explanatory'. Tell less, show more. After the review, some friends remarked the same. This book is not really literature'.

'Should it be literature? Is it possible to write literature when you want to educate people about their values and beliefs? Will this book not appeal to people who already have this interest in any way, or at least the same values'?

'Probably yes. Someone said -after reading the first pages where I let a family of Afghans help the main character- that this book would only attract left wing people'.

'Were left-wing people your target'?

'No, or not intentionally. My ambition was to write a book for every Flemish citizen, but later I realised that was extremely ambitious, and wrong. The manuscript was almost ready to be published when I had a long talk with an expert in sustainability innovation, who criticised me for not identifying my market segment first. I felt a bit ashamed that I had not considered who my actual audience was, despite having worked in the communication sector previously. I was blinded by my ambition to teach all Flemish citizens about circularity and thought that a story would be acceptable for everyone, but of course it was not. Another person told me that the book was uneven in its accessibility with some parts being easy to understand, perhaps even too easy, and others having many difficult expressions and words. I realised then that I had written a book for myself. The people that liked the book and contacted me were not so different from me...' I smirked. '- or my main character in their beliefs and values. I once received an email from a woman who shared all the parallels between her and the main character. Even her name was almost the same'.

'Scary'.

'I thought the same first, but then I realised it made sense'.

2.4. Profile of co-designers and influencers

Art work and other designs are never the work of one person. The creation of the book was completed over different phases and was influenced by different persons on different levels. The involvement of others in the co-learning and co-designing process is an innate aspect of transdisciplinary research (Lang et al., 2012). The table displays the people who gave new materials and knowledge during the composting process of both the eco-fiction book and this manuscript, as a co-designer or influencer (Table 2), in the period 2016–2021. The researcher/writer got introduced to this concept in 2016, which is taken as the starting year.

The proof-readers were peers who offered a different perspective on circularity, focused on a different aspect of circularity or different intersections, or people who were unfamiliar with circularity but involved in the language and style editing. Both proof-readers and experts shared examples of lived experiences of circularity in Belgium that have been integrated consciously (and a priori writing the autoethnography) or unconsciously in the fiction work.

Table 2
List of the co-designers and influencers.

Profile	#	Description	Contribution
Bold Branders	4	Practitioners engaged in making CE more known to a broad public in Flanders	Organising promotional activities, providing feedback on the content of the eco-fiction book
Non-expert proof-readers	2	Readers who were not familiar with the concept of CE, including the editor	Proofreading, language, and style editing, also reflecting on the content
Expert proof-readers	2	Readers who are familiar with the concept of CE	Proofreading, but with a focus on the content
Circular Business experts	2	Practitioners in Belgium and other countries where the researcher/writer resided and visited since 2016	Sharing their lived experiences
Experts in storytelling & campaigning	x	Practitioners and teachers	Providing theoretical grounding for the language and story choices made

3. Reflections on writing an eco-fiction

3.1. *Circular economy, what's in a name? Is it a world or a story?*

Research shows that more scientific knowledge about sustainability problems often does not lead to attitude and/or behavioural change, but wiring them into the right narratives can change the way people think and act (Grace, 2011; Richter et al., 2019). Circularity needs to be included in more stories to form a counterweight to the dominant stories in our culture (Freire, 2018): the stories of anthropocentrism, eternal economic growth, material status symbols (e.g., possession of a car and a house in the countryside and patriarchal ideas about hierarchy that parts of nature (trees, women, low class men) are subservient, lie at the root of the current ecological and social crises (Pirages & Ehrlich, 1974; Plumwood, 1993; Stibbe, 2020).

Subsequently, it can also be seen as a world, or representing a certain worldview with its own stories, values, and heroes. One of the main learning journeys of writing a 'CE fiction' book was in understanding what CE means and how this model would contribute to society, and to individual people and characters. One of the main challenges is the existence of different interpretations of circular futures (Bauwens, 2021), which confused me too. This is for two reasons: Firstly, the concept of CE is contested and vague (Korhonen et al. 2018; Calisto Friant et al. 2020); secondly, even within the same definition of CE, there are different interpretations that arise from the deep ontological and epistemological issues at the root of transitioning circularity (De Angelis and Ianulardo 2020; Temesgen, Storsletten, and Jakobsen 2021). Some researchers consider CE more as a socio-technical imaginary or as a set of often contesting imaginaries (Fratini, Georg, and Jørgensen 2019; Marin and De Meulder 2018). Some consider CE's different imaginations as a world yet to come. Local governments and other practitioners might add their own values and assumptions (drivers) in their imagination of a circular city and CE, which lead to different agendas and priorities (Marin and De Meulder 2018). Some future designers envision CE as a set of technocratic practices focused on optimising current systems and practices, whereas others focus on radical transformations with radical ecology values, and population limits in their designs to reduce their dependence on imports (Friant et al., 2020, Marin and De Meulder, 2018).

Which version of CE should we promote? Which values and narratives do we address? Which norms and standards do we impose, or even challenge? In which contexts and political economy do they take place? A post-growth society (Bauwens, 2021), a world full of conviviality, or an ecomodernist smart world where everything is optimised (Genovese and Pansera 2021)?

It is important in this context to understand the place/context and how it influences the lived experiences of different citizens. Regarding the context from which I drew inspiration for the story, it is important to note that the Flemish CE evolved rapidly since the launch of the Flanders Circular and its first bootcamp in 2017. More stakeholders and experts joined the transition and added their expertise and expectations through their imaginations and actions. In 2017, the focus of important bodies like the Flanders Circular were mostly on circular businesses, and the dominating political agenda was of innovating material flows (e.g. implementing digital technologies), with the concept of Reburg, a Flemish circular city in 2036, used as a tool in the Flanders Circular, to help imagine circularity (Marin, 2018).

Bold Branders emerged from this more technocratic imaginary of Reburg and focused in the first year on promoting economic and technological innovations. The first storytelling projects were all about showcasing or writing blogs about these existing pilot projects. However, by the time a more ambitious project - a whole fiction book- was proposed, the mental model had already shifted, because of three types of experiences: conversations with people and communities in different contexts in Europe and Asia about their lived experiences of circularity (Wuyts & Marjanović, 2022; Wuyts and Marin, 2022); an introductory course on eco-linguistics, and my own lived experiences of circularity.

From 2017–2019, I organised introduction workshops about CE principles and practices to communities from various backgrounds (e.g., highly educated graduate students from different Asian countries, young adults with none to low education in Belgium, often with a migrant background) and often got the feedback that they recognised these principles and practices, but under another name. I felt ashamed that I was rebranding, even colonising, existing practices for the sake of innovation, and not recognising the value of their knowledge and lifestyles (Wuyts & Termont, 2020); things I were already reflecting on in 2017, during the writing of my Master thesis on the implementation of circularity (Wuyts 2017).

In 2019, while I was writing the previous drafts of the book, a friend who was also investigating stories as a tool to bring change in her own activism, introduced me to eco-linguistics. This subfield of linguistics provides the principles to unearth which values were stored in dominant stories (Stibbe, 2020). I participated in a free online course in eco-linguistics that she had directed me towards (Roccia and Iubini-Hampton (2021)). The course reminded me how naïve and unaware of the role of stories I was. It taught me that dominant stories hindered the transition and even contributed to the ecological and social crises. Such as by presenting stories of eternal economic growth for the benefit of an elite at the expense of world citizens and nature; or the idea that success is measured through the possession of a car, house, and as much new stuff as possible. One big paradigm that hindered the digging work was the anthropocentric view, which is acutely present in the circularity design, and in the economic and environmental development in Flanders (and beyond). Inspired by examples of the eco-linguistics course, I experimented with narrative techniques, for example, by gradually letting trees, dolls, and furniture be the subject of an active sentence, and not just the object, to give them a soul too. Additionally, I added information on eco-linguistics in the appendix of the book. However, this anthropomorphism can also be interpreted as a manifestation of an anthropocentric view (Stibbe, 2020). Nonetheless, the intent was to decentre the narrative, and challenge the current narrative practice of making non-humans invisible. Although it is difficult to measure the impact of this micro-intervention, one proof-reader observed that it gave him 'permission' to start talking to the owls and birds in their garden. This may be indicative of the commencement of tentacular thinking (Haraway, 2016).

3.2. Selected choices in the story

3.2.1. How Antje's evolution echoes my own values and principles

The basic narrative structure was inspired by the Russian folktale about Vasilisa the beautiful, as told by Estes (1992), and includes Estes' Jungian interpretation of the narrative phases: a young girl, with a doll representing ancestral knowledge, who has to do some tasks, given by an old weird wild woman, to become a mature woman. During the writing process, the basic structure disappeared into the background, however, the coming-of-age aspect - and the doll representing ancestral knowledge- survived the writing process. Meanwhile, I had realized that circularity should be more than 'the sum of businesses' and introduction of innovations (Marin and De Meulder 2018). Priority should be given to what is already existing and in starting with a tabula scripta. For instance, there is a lot of value in 'old/pre-war practices' that have almost disappeared in Flanders. I started to read more about the histories of Flanders to look for pre-war practices that are circular and place specific. The 'old house of the grandmother' was a perfect locus for letting Antje discover and remember forgotten practices and tools, for example a kettle to preserve vegetables. The introduction of value for the 'old and existing knowledge' was mostly introduced in the 'family storyline'. In my own hierarchy of circular practices, maintaining and using that which already exists is more circular than creating new products and commodities. This hierarchy is clearly present in Antje's ideas about the maternal house and the objects inside. While Antje initially wishes to throw away the objects she deems useless (linear economy), as the narrative progresses, she wants to give it to second-hand markets, however, eventually she decides to keep and maintain it. From a post-growth perspective (Bauwens, 2021), this is the more desirable CE practice, but in a capitalist political economy, the second-hand market choice would have been better, as it creates added economic value. Table 3 displays the arguments of my set of values and principles on CE that I wished to be included in the fiction work. I prioritize existing structures, working with what is already there (e.g. existing knowledge, infrastructure or materials embedded in this) and finding ways to let more people benefit from the provisioning systems. However, I also seek to phase out old structures that do not serve most people (e.g., power structures) (Lodder et al., 2017). This contrasts with CE practices which apply a tabula rasa strategy, that involves building, selling, and demolishing in short cycles to generate profit for a privileged segment of society. I can also add that I am a proponent of the Chthulucene, a system built of narratives about multispecies justice, practices of becoming-with and tentacular thinking that would hopefully result in a better world with space for multispecies justice and which addresses the growing problem of refugees among humans and non-humans (Haraway, 2016). Analysing a priori through lenses provided by critical CE future thinkers (Bauwens, 2021; Pansera et al., 2021) and discourse analyses (Friant et al., 2020), the work of these thinkers clearly echoes a context of conviviality (Illich & Lang, 1973) and transformational circularity (Friant et al., 2020).

3.2.2. Influence of observing my and others' lived experiences

One important dimension, namely about safety, was added in the story, because of dialogues with another member of Bold Branders, a safety expert who was doing her Master thesis on holistic safety approach to recycling centres and CE (Cayers, 2020). Already in the first bootcamp, she asked critical questions to some entrepreneurs about the safety aspect of reclaiming and using 'old machines'. This served as the inspiration for a plot twist in the story. The book includes a scene where the brother is irresponsible with

Table 3

The values and principles I consider important for achieving a full CE.

Values and principles	Explanation (and hypotheses)
Waste and pollution do not exist.	Probably the most well-known CE principle. Waste and pollution are 'nomens' which are an inherent part of a linear economy. This means closing cycles (again).
Multispecies justice	Getting to know the pluriverse, being humble and accepting that we are all interdependent (Haraway, 2016; 'Escobar, 2019). Understanding that human and nonhuman Life on Earth have value in themselves, and that these values are independent of the usefulness of the nonhuman world for human purposes, cfr. 'Sustaining life strategies', as explained by Wuyts, Marin, et al. (2020). The principles are also part of the typical Rewilding story (Stoknes, 2015).
Equal access to provisioning systems	Infrastructure, materials, housing... should be available, at any time, to human (citizens and non-citizens), and non-human life. This means re-evaluating the economic organisation and juridical frameworks.
Safety and security	I come from a white conservative low-class and low-educated family, where having a job in an old sector and working hard is (used to be) valued more than safety and health. I observed different occupational health issues. Additionally, a safety expert raised some points about this. The practices should be undertaken in safe conditions.
Care	Long term intimate relationships with place, materials, human, and nonhuman life are the basis of a good life. Alienation is one of the big problems of society, because it leads to fragmentation, polarisation, exploitation, and loneliness. Caring for materials and people, by working, playing or interacting with them, is a circular value (Wuyts and Marin 2022). This implies kinship with the whole ecosystem and other life and finding consensus on what to give (back) and take (Haraway, 2016). This is also present in the typical environmental steward story (Stoknes, 2015).
Adaptability	Humans should be able to adapt to current and new crises (psychological and ecological) in a way that is good for them and nonhuman life.
Slowness	Some processes take more time than others. CE is not only about 'transforming materials', but also about 'transforming people' and transformation requires time. The more slowness is respected, the more circular. This implies respecting different slownesses. It means that the less slow processes should respect the slower processes.
Sufficiency	Enough is ok.
Agency	Many people feel that the problems and crises in the world are a fixed reality, that this is just the way things are and that they cannot have an impact on systems (Freire, 2018). This psychological barrier of 'low perception of low locus of control' (Stoknes, 2015) can be countered by introducing narratives where people feel that every small step makes a difference (Ganz, 2010).
Regenerative work	Another known principle is improving the health of ecosystems through regenerative design and practices. The healer story.

an old machine and ends up in the hospital. She helped me to make this element more believable by recommending another machine: Proof-reader of Bold Branders (August 2019, comment in a previous draft, translated).

‘a laser machine doesn’t look dangerous when it’s off, I think. An old saw machine for example certainly does, without a protective cover. Is it crucial to your story that it is a laser machine? (My suggestion: an) old saw machine with no protective cover, rusty saw blade, and instructions that are faded. If you made an effort, you can just barely make out that safety glasses are required. But the lubricating oil and other junk made this unreadable at first glance’.

Additionally, this book also includes critical questions about security and access to resources and means. Antje questions about business model ideas like subscription models, which can be tricky for people in precarious situations. I heard these questions when I interacted with other researchers about circular business models in Europe and focused on user perspective and social impacts. For instance, circularity promotes use and access above ownership; and applauds initiatives like a sharing and renting economy. Some researchers had a positive outlook on and knew projects where renting and sharing a commodity, such as a washing machine, was beneficial to people with no or low income. However, in another talk, it was mentioned how ownership can enable security and a renting and sharing economy can hinder this security. For example: you have a subscription to furniture, which you can initially afford because you have a job. What if you lose the job and can no longer afford this subscription?

Arne is based on my brother and his friends, who confronted me back in 2017 on my valuing of innovation above durability, based on recent choices I had made regarding household commodities.

The discussions between Arne and Antje about the valuation of skills and knowledge are also based on conflicts I have had with my own brother. In my twenties, I thought high education was an indicator of success in life and was condescending towards my brother who is a high education dropout. This tension is processed in the book and echoes observations in the cultural context of Flanders (and also elsewhere) that some jobs and skills are less valuable than others, a dualism which was criticised by Val Plumwood on contemporary environmental debates and projects as well (Plumwood, 1993). This dualist thinking was also visible in the initial creation of the CE villain.

3.2.3. Eco-anxiety and villainizing

One of the primary drivers behind writing this book was eco-anxiety. Only later, during an eco-anxiety workshop conducted by a psychologist for a group of young environmental scientists (June 2021), did I realize that the way it often manifests in me was as eco-anger (Stanley et al., 2021). I would blame others for not doing enough, but I would also feel the same guilt and anger towards myself as well. Even writing this book felt often as not ‘enough’ or as fast enough, in the aegis of the urgency of climate change and material insecurity challenges.

This overcompensating behaviour was reflected in the construction of the antagonists. The character of Nadia, the ‘stepmother’ was more villainous in the previous versions. In the fairy-tale of Vasalisa, which I used as the basis for my story, the stepmother was the villain. Nadia has clear intentions of erasing ‘the maternal past’ of the main character, because of her jealousy and insecurity towards the dead mother, believing that she was the big love of her husband, and that she herself was only a second choice. Initially, Antje is complacent in the deletion of her maternal past, but later she has a change of heart and opposes Nadia. I initially argued that Nadia became a CE villain because promoting the maintenance and (re)use of existing structures, and thereby the past, is one of the big circular practice themes in the story. I only realised later, thanks to the comments of another member of Bold Branders, that I constructed characters like Nadia because I had a normative stance and that this would scare people away from the main ideas of the fiction. Only at the stage of writing this paper, did I realise that it was a result of my overcompensating behaviour and a manifestation of my eco-anxiety:

Proof-reader of Bold Branders (07 October 2019, email, translated).

‘Suggestion: not everyone is on the same gear. It is not important how hard you are working on it. A family can make a big impact by eating vegetarian for a day now and then, it is unreasonable to expect them to take on a habit they are not familiar with. Slow and steady is also good for seeing things differently. No, us and them story. Little bits help too. Now everyone in the book, except the Dad and Nadia, has nothing but praise for sustainability and stuff.’

My reaction (07 October 2019, email):

‘You’re right. I just came back from a day of meeting and analysing (the first results of a project where we introduced youth to CE principles and practices) and then we were also talking about how each person is in a different gear, depending on certain preconditions and so on. Each one adapts in different ways. I wanted to have more characters to offer different perspectives, but to make the story simpler, I cut back on characters. How would you adapt the story to make this idea more prominent?’

Proof-reader of Bold branders (08 October 2019, email).

You could maybe let Antje have a discussion with Nadia. Nadia is not on board at first, but then through Antje sees that there are many benefits without Antje lecturing but from just setting a good example. Further back, Nadia can get annoyed about all this talk about CE and start a discussion with Antje. She doesn’t want to become a greenie. She does like the luxury she has. She has worked hard for that and she doesn’t want to give it all up! Antje can then point out, like vegetarian eating, that every pace is good and every step in the same direction is a good step.

In the final version, Nadia became less villainized. She kept her values and ideas about wellbeing, but I also let her perform ‘good acts’. The integrated this proposal from the proof-reader:

'Nadia can use her money to have the machine that hurt the brother updated to the latest standards and safety norms to ensure that he will not hurt himself again while keeping the machine operational. Nadia can arrange this as a surprise; as she knows the right people to convert the machine from her work.'

This feedback also inspired dialogues between characters that discuss the familiar 'each small step counts' versus 'big fixes' discussion and making some characters more 'middle ground', and challenging binaries often observed in environmental ethics (Plumwood, 1993).

4. Discussion

Even after the publication of the CE fiction book, I kept learning, as I engaged in conversations with others about circularity, storytelling, the book, and the commitment to this autoethnography. It was often painful to realise what I could have done better, but sharing these disappointments and ambitions of the process might help future thinkers who consider fiction as an education and communication tool to communicate to a broader audience.

4.1. Comparing with the process of science fiction prototyping

Different studies show the role of narrative in communicating science to non-expert audiences (Dahlstrom, 2014) and its role in sustainability transitions (Moezzi et al., 2017; Fischer et al., 2019), which include a large body of literature on 'the novel' in relation to environmental storytelling. One established subfield focuses on science fiction (sci-fi) that could aid in addressing the challenges of writing such fiction. Although most novels are situated, the context is a given and not subject to interpretation by readers (Nikoleris et al., 2017), but in genres like science fiction and fantasy, more interpretation about the context and place are required from the readers to understand the actions and choices made by characters. This requires creating a puzzle of the right parameters and conditions for that world, while also making it logical and comprehensible for the readers (Wolf, 2014).

The challenge of CE is that it can be a story or a world, because it is a narrative set against the narrative of the linear economy, however, it is also an umbrella concept that can envelop different contrasting worlds, strategies, and practices. This makes writing a circular fiction difficult, because it means not only writing a narrative set in a CE world, but also building a world itself.

The process of writing this eco-fiction could be compared with science fiction prototyping, a method in futures design which is grounded in theories and science (Merrie et al., 2018). Merrie et al. (2018) proposed a sequential model for futures-scenario development, with building a scientific foundation as a first phase, and to build a story world afterwards. Narrative development is for a later phase: which includes the introduction of a scientific inflection point (a system failure), the impacts on people and nature, and human inflection point. However, if we see CE as a science fiction story, there is critique about its scientific basis, as CE is 'created mainly by practitioners, the business community, and policy-makers' (Korhonen et al., 2018; Prendeville et al., 2018).

I faced similar feelings as others in science fiction prototyping projects. Without a deadline, this book would not have existed, because I felt I did not know 'enough' about CE. The perception of not knowing the subject enough also was observed by Merrie and his colleagues when fiction creators reflected upon their learning process Merrie et al. (2018). The scientific foundation, or CE knowledge in 'Als Meubels Konden Spreken', was a combination of inputs by many people; a combination of theories, scientific evidence-based knowledge, and practitioner-experience based knowledge (public officials, educators, and entrepreneurs). Knowledge was produced and used not only in the beginning, but also through feedback rounds in different stages of writing the book. The book integrated knowledge of the subject, and mine and other's lived experience with circularity, especially in the construction and furniture sector. Eight proof-readers, with various backgrounds, were asked for feedback to guarantee the digestibility of all the matter presented and reflected upon in this story, and to challenge the content if needed. The figure also presents some conflicts in the choices, discourse, and selection of practices, which will be discussed later and connected with the findings of other scholars who studied imaginaries of CE. The right part of the figure displays the learning impact during and after the creation process. As the characters are introduced through conflicts and dialogues to the contested definitions of and different prioritisation within the CE design, I hoped this would also foster some reflections among the proof-readers and readers.

In previous papers that look at the role of science fiction prototyping in sustainability transitions, little is said about the role of values and lived experiences that explain the values echoed in my design. Should there be one general ecosophy for all circular future design thinkers or should we give the freedom to design thinkers to create their own ecosophy? Alternatively, should an exercise that allows them to reflect on their values and biases that could affect their design, fiction work, policy and plans, or curriculum, and to research the impact of different ecosophies on the feasibility and justice of imaginaries be undertaken?

Ecosophy, a term spearheaded by Arne Naess refers to a philosophy about ecological harmony which contains norms, rules, values, and hypotheses; it refers to not just scientific facts about environmental matters, but also mental models and value priorities (Drengson & Inoue, 1995; Naess, 1990) shaped by different sources, including eco-linguistics. Synchronously, I learned from campaigning experts, whose 'tricks' are not always in alignment with ecosophy, that the most popular stories are '(super)hero' stories where society is 'saved' by clever technologies or individuals; where society only has the passive role of an audience (Janda & Topouzi, 2015). These kinds of stories let many people off the hook from having to actively participate in the transition to a more just, circular, and beautiful world, because they erode agency. This fiction story has many 'feminine' values and can be categorized as a post heroic story (Blackie, 2019) or 'learning story' or 'caring story', where things are not quite as simple as they first seemed (Janda & Topouzi, 2015). In a learning story, protagonists are normal people who need to overcome a challenge and actively engage with the discourse rather than be passive observers in a story that offers a false sense of catharsis (Janda & Topouzi, 2015). However, CE itself is often seen as a hero

story in an ecomodernist world, which is echoed in the way it is documented in the indicators deployed by institutions such as the EU (Lazarevic & Valve, 2017; Kovavic et al., 2019).

Hence, the next question is how much freedom to give in science and design. Various scholars highlight that circularity is not possible if no agreements are made about the political economy, and its priorities and values (Bauwens, 2021; Genovese and Pansera 2021).

4.2. Acknowledging the danger of a single story

Borrowing the title of the TED talk by the feminist author Adichie (2009), I want to shed light on ‘the problems’ that I realised only a posteriori. Different readers gave me feedback that the story is clearly written by someone with the agenda to promote a ‘socialist’ CE, because this CE story belongs more in a world of conviviality (Genovese and Pansera 2021) or post-growth regime (Bauwens, 2021). Another comment was on the medium of the fiction book itself: that the story is only going to reach a certain group of citizens, who share the interest of reading fiction books within certain genres. Additionally, by going for only one story, or one point of view (that of the main character), I present only one version of circularity - the ones which harbour her values and needs, which would only resonate with people who share her values and needs. This same lesson of the problem of value-blindness came to the foreground in another ‘introduction to CE’ project (Wuyts & Marin, 2022). The author learned only afterwards through the models of unsustainable consumption (Thøgersen, 2014), that everyday practices of consumption are shaped not only by basic human drivers (like values and needs) and limitations (like, time, resources, self-control resources, skills, etc.), but also by family and cultural norms and standards that have an impact on everyday practices and therefore, the consumption (and production) patterns within a society. Collecting information on people’s lived experiences and its contexts can serve as material for analysis of social and socio-spatial impacts of circular designs, programs, and plans. This also creates more empathy for people who cannot act ‘more circular’ according to the dominant vision for a circular future, because of the circumstances in which they live. Lived experiences can give insights about the barriers that certain political, cultural, and social contexts can create in the transition to a full CE.

In a follow up of the project, Bold Branders reflected that the next phase of the project should be the organisation of a contest or another platform that allows for more stories about different lived experiences in different circular futures to be shared. This has been called for by other scholars about storytelling and climate change as well (e.g., Stoknes, 2015), to highlight the multiplicity of pathways. I encourage other environmental educators to let their students create fiction to reflect on and learn about circularity and other sustainability pathways. In December 2021, I did a 90-minute workshop on CE to people who are already familiar with the concept, and let participants first imagine a circular city, which generated multiple interpretations. Later, I asked them to pick a character and write a story. During the reflection round, they shared that it was a difficult exercise, but that it helped them realise some things about the social impacts of circularity and lived experiences. Future research can systematically investigate the impact of such fiction exercises in education and communication on a bigger scale.

5. Conclusions

Storytelling can be a powerful tool in communicating and educating people about CE. Fiction can help us understand how sustainability concepts can be seen as everyday practices, which makes it easier for more people to understand what it means. This manuscript presents an autoethnography of the process of writing a CE fiction. It is noteworthy that the impact of such creative experiences on readers is difficult to measure; however, an autoethnography is an intense method that does not only invite reflection, but also a composting of these reflections into a documentation of impact on the writer itself. Bold Branders conducted an impact study on only ourselves and a few proof-readers, which highlighted that Bold Branders had become a content school where the volunteers got to know even more about CE, especially in the Flemish context, and develop practical skills, from organizing events to graphic design. Additionally, we are all engaged in other activities (job) and projects, and could bring in ideas from other communication, citizen engagement, and pedagogical projects that we are engaged in. Cross-fertilizations happened with other studies and projects, and influenced the focalisation of the fiction work.

This autoethnography illustrates that in my case, the active writing helped me learn more about the different interpretations of circularity, its benefits and preconditions, and the importance of acknowledging and accommodating emotionality and my mental health issues (eco-anxieties) when creating these designs. The autoethnography itself allowed me to realise how I used my own lived experiences of circularity – and that of others in the collective- to translate an abstract concept such as circularity into a fictionalized circularity. Lastly, the CE is a set of futures, worlds, and cities yet to be; the socio-technological imaginaries do not necessarily share the same values and principles, and therefore, have different practices and impacts on lived experience. The first question that we have to ask in CE transitions is not ‘which stories do we need’? Similarly, it is not about providing clear guidelines and scientific evidence, as Prendeville et al. (2018) suggests. It is about presenting stories that are more recognisable, and thus implies a diversity of stories. This manuscript highlighted how fiction on sustainability can help in translating abstract concepts to the everyday, making it meaningful for more citizens.

Lastly, this manuscript shows that CE can be a story or a world, because it is not just a narrative against the narrative of the linear economy, but also an umbrella concept that can envelop different contrasting worlds, strategies, and practices. This makes writing a circular fiction difficult, because it means not only writing a narrative set in a CE world, but also about building a world itself and the difficulties of arriving at the right parameters and conditions of that world.

Funding

The project Bold Branders was partly co-funded by Vlaanderen Circulair, Belgium, under project nr 2017-OC-SO 191.

Declaration of Competing Interest

I have read and understood the journal's policies, and I believe that neither the manuscript nor the study violates any of these. There are no conflicts of interest to declare.

Acknowledgements

I want to thank Varvara Nikulina, Astrid Holzinger, Natalya Amirova, the editor and anonymous reviewers for comments on previous drafts of this paper. Additionally, I want to acknowledge the other Bold Branders, and in particular Eva Degryse, Elke Deneve, Ingrid Caeyers, Carl De Geest and Yolan Gielen. Lastly, I thank Circular Flanders for the co-funding and the bootcamp that started this all.

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