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24

TOWARD A TYPOLOGY OF CIRCULAR ECONOMY AGENCY

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Introduction

Faced with climate and biodiversity collapse (IPBES, 2021; IPCC, 2021), the ecologically sustainable future of humankind is increasingly questioned (Rockström et al., 2009; Steffen et al., 2015). The shift from a linear to circular economy (CE) has emerged as a systemic means via which the economic system can steer toward carbon neutrality and reduce the usage of natural resources (Schöggl et al., 2020). CE represents fundamental changes in business, causing paradigm changes in regard to how humans interact with nature, requiring implementation at the micro-, meso-, and macro-levels (Prieto-Sandoval et al., 2018). Taking a critical stance, however, CE tends to be viewed from a techno-operational and economic lens, which ignores its sociocultural dimensions (Mäkelä et al., 2022). The need for speed in mobilising the agency of societal change agents to accelerate CE transitions is recognised (Blomsma et al., 2022). Nevertheless, the nature and role of CE agency remains poorly considered (Jokinen et al., 2021; Koistinen et al., 2022; Sarja et al., 2021).

To start addressing this gap in understanding, this chapter explores actors and their agency in catalysing the CE transition. To guide our inquiry, we ask: 'How do individual and organisational actors exercise their agency in accelerating CE transitions?' Our research approach is abductive, building upon our interdisciplinary research team's theoretical and empirical insights in the study of CE agency in 2015–2022. The main contribution of the chapter is introducing the concept of CE agency, while developing a typology of CE actors and their agency at the individual, organisational, and inter-organisational levels of analysis.

The chapter proceeds as follows: The next section reviews theorising on agency and sustainability agency. Section three introduces our methodological approach and research settings. In section four, building on empirical findings, we present our typology of CE agency, consisting of individual, organisational, and inter-organisational actors exercising their active and relational agency in catalysing CE transitions. The final section highlights the contributions of our work alongside limitations, future research directions, and educational implications.

Prior theorising on agency and sustainability agency

The question and study of agency cuts across the history of the humanities and social sciences, with roots in early philosophical inquiry. In this section, we offer a review of agency and sustainability agency to position the chapter in prior theorising.

To begin with, agency appears in many forms. Theorising on agency across the social sciences implicitly equates this concept with living beings; this is particularly exemplified via human agency (Ritzer, 2000). Also, non-human agency is recognised (Latour, 1987; Law, 1992). Multispecies sustainability acknowledges the agency in all forms of life in nature, be it in animals, viruses, bacteria, plants, etc. (van Dooren et al., 2016; Rupprecht et al., 2020). Further, there is also material agency (Knappett & Malafouris, 2008), whose connection with human agency becomes critical in the CE context (Jokinen et al., 2021). While acknowledging other forms of agency, in this chapter, our focus is on human agency.

Agency can further operate at different levels of analysis. The bulk of theorising in the social sciences has equated human agency with individual-level agency (Bandura, 2003; Emirbayer & Mische, 1998). For example, in management research, the notion of change agency represents active change-makers involved in organisational change (Caldwell, 2003). Beyond individuals, agency can also refer to collectives that act (Crozier & Friedberg, 1980; Ritzer, 2000), such as social classes (Touraine, 1977). What is more, agency can materialise in relationships with others, then termed as relational agency (Burkitt, 2015).

We build upon definitions of agency as an individual's or a collective's capacity to act (Dietz & Burns, 1992; Giddens, 1984). The focus on one's 'capacity to act' explains why questions of agency can be considered to define what it means to be human (Bandura, 2003), as well as why questions of agency can be considered to characterise the history and evolution of humankind.

The relationship between agency and structure marks a classic divide within the social sciences, as stances toward one or the other represent alternative paradigms (Caldwell, 2003; Emirbayer & Mische, 1998). In this realm, Giddens's (1984) theory of structuration, addressing the relationship between agency and structure, is influential. He considers agency and structure as operating in a dialectical interplay, given that all social action involves structure and vice versa. In contrast, other scholars have provided primacy toward either agency – as in phenomenology – or to structure – as in structuralist or institutional theories (Ritzer, 2000).

There is an increasing interest in the role of actors and their agency in building sustainable futures. Yet, this knowledge is scattered both within and across disciplines (Koistinen & Teerikangas, 2021; Onkila et al., 2019; Teerikangas et al., 2018). Furthermore, the terminology used is multifaceted and spans multiple levels of analysis, with numerous forms of agency in building sustainable futures having been identified. Thus, management theorists study firms' non-market strategies (Doh et al., 2012), social entrepreneurship (Waldron et al., 2016), shareholder activism (Goranova & Ryan, 2014), and employee volunteering (Rodell et al., 2016). Together with sociologists, they possess an interest in social movements (de Bakker et al., 2013; Heaney & Rojas, 2014) and institutional entrepreneurship (Pacheco et al., 2010). This parallels the psychologists' interest in environmental activists (Gousse-Lessard et al., 2013). Environmental management scholars study firms' engagement in external collaborative partnerships (Wassmer et al., 2012) and within-firm sustainability change processes (Haugh & Talwar, 2010). In sustainability science, the role of niche, regime-shaping, and incumbent actors is recognised (Smith & Raven, 2012). In sum, numerous terms are used to denote sustainability actors and their agency. Taking a critical look, integrative views of actor types, roles, and their means of influencing sustainability transitions remain amiss (Garud & Gehman, 2012; Geels & Schot, 2007; Markard et al., 2012; Pesch, 2015).

To this end, based on an interdisciplinary review of different forms of agency in the pursuit of sustainable futures, the concept of sustainability agency was introduced by Teerikangas et al. (2021), referring to intentional, proactive individual or collective-level action geared toward sustainable futures – also involving interaction with material forms of agency. The concept of sustainability agency was introduced as an umbrella concept in consideration of the variety of actor types exercising their agency in the pursuit of sustainable futures. It deserves mention that scholars of sustainability agency tend to study active change-makers. In order to capture the multiplicity of actor types, Teerikangas et al. (2021) present sustainability agency via four lenses. The first lens to sustainability agency illustrates individuals, be it managers, professionals, employees, or consumers. The second lens to sustainability agency refers to active actors, as in the example of institutional workers, sustainability activists, social and environmental entrepreneurs, citizen collectives, or social movements. The third lens to sustainability agency is relational, representing sustainability agency occurring in interaction, negotiation, and collaboration with a broad spectrum of stakeholders – be it via projects, partnerships, networks, or ecosystems. The fourth lens to sustainability agency builds on governance – be it (in)formal economies, legislation, governments', regions', cities', public organisations', or companies' agency. In sum, these four lenses portray sustainability agency occurring within and across different levels of analysis. In this chapter, we build on the concepts of agency and sustainability agency to guide our effort to appreciate CE agency.

Methodology

This chapter builds on methodological innovation and integration, as we bring together an interdisciplinary research team's insights garnered while exploring CE agency. In light of the lack of prior research on the subject matter, we adopted a two-way, abductive research approach.

To begin, our research was guided by an interdisciplinary, conceptual, and integrative enquiry into the nature of sustainability agency. While working across the disciplines of management and sustainability science, we observed the lack of a mutually agreed upon view as to what sustainability agency is. Subsequently, our research team edited an international research handbook on the subject matter, inviting leading authors to review a particular element of sustainability agency (Teerikangas et al., 2021). The previous section offered a succinct overview of this enquiry.

In parallel, we adopted a grounded theory-building research approach (Glaser & Strauss, 1967) to study CE agency in empirical contexts, which offered insight into CE transitions that are actively in the making. Grounded theory-building is welcomed in the study of novel phenomena and ongoing social processes, in which little available theoretical insight is available (Glaser & Strauss, 1967). All the while, we extensively read across the literature on corporate responsibility, CE, sustainability transitions, and ecosystems, seeking to appreciate each field of research while also aiming to identify the role of active sustainability actors therein. Extensive reading across the literature is suggested in grounded theory building as a means of enhancing the researchers' theoretical sensitivity (Glaser, 1998). Our empirical focus was on Finland, a revelatory case study, the first country in the world to develop a national-level roadmap for CE implementation. Moreover, CE is featured on the government's agenda, which aims for Finland to be a CE-based country by 2030 and carbon neutral by 2035. Our interest was in appreciating the agency of front-runner individuals and organisations via three parallel studies, conducted in 2018–2021 as part of the Finnish Academy Strategic Research Council–funded Circular Economy Catalysts

Table 24.1 Overview of the three studies and findings presented in this chapter

	Study 1	*Study 2*	*Study 3*
Focus of study	Managers and change agents in front-runner CE firms	Eco-influencers and activists	CE innovation ecosystems
Level of analysis	• Individual • Organisational • Industrial • Societal	• Individual • Societal	• Individual • Organisational • Ecosystem
Timing of interviews	2019–2020	2021	2019–2020
Data (number)	51 interviews	20 interviews	21 interviews 24 meeting recordings
Interview themes	• CE strategies • CE practices, challenges, success stories, • Change agency and stakeholders	• Motivation, triggers for lifestyle transformation • Challenges and coping strategies	Innovation ecosystems: • Emergence and development • Management, organising • Social interaction
Theoretical framing	• Top managers' power and agency • Professional change agents' agency • Strategy	• Sustainable consumption • Behavioural change	• Ecosystems • Ethnomethodology • Conversation analysis
Analysis approach	Inductive, grounded theory-building during analysis, turning toward abductive when building contributions per study and for this chapter		
Findings on CE agency	• Top managers' agency • Change agents' agency • Companies' agency • Inter-organisational collaborative agency	• Citizen-consumers' agency	• Relational agency

research project (studies 1 and 3) and the Kone Foundation–funded Circular Citizens research project (study 2) (see Table 24.1):

1 The first study consisted of interviews conducted with 51 managers and professionals in Finnish companies considered to be CE spearheads.
2 The second study consisted of 20 interviews of consumer-citizens acting as eco-activists.
3 The third study was an in-depth longitudinal case study of an emerging city-based CE ecosystem in the city of Espoo, based on interviews with managers and professionals representing public and private-sector organisations, as well as online meeting recordings from project and working group meetings.

Our analysis proceeded in three phases. First, using inductive analysis, we identified the types of individual and organisational actors as well as their agency in shaping the circular transition. This led us to define the empirically derived categories of:

1 Individuals exercising their CE agency as 1) citizen-consumers (study 2), 2) professional change agents and 3) top managers (study 1), and 4) professionals working in circular ecosystems (study 3);

Table 24.2 Typology of CE agency

	Active agency exercised via an actor's role		*Relational agency exercised via interaction*
Individuals driving the circular transition	Prosumer's agency of citizen-consumer	Professional's change agency	Professionals' orchestrative agency
	Citizen-consumer's eco-influencer agency	Top manager's agency	
Organisations driving the circular transition	Companies' agency		Collaborative inter-firm agency
	Cities and regions' agency		
	(Inter-)national institutions' agency		Collaborative public-private agency
Inter-organisational collaboration driving the circular transition	Agency via *partnerships, supply chains, networks,* ecosystems		

Note
Actor types marked in *italics* are not covered in this chapter.

2   Companies exercising their CE agency (study 1);
3   Inter-organisational collaboration as a driver of CE transitions (study 1).

Second, we reflected these inductively derived categories onto prior literature. This led us to connect citizen-consumer roles to the concepts of prosumers and eco-influencers in the CE and sustainable consumption literatures, while the concept of change agency connected with management theory (Caldwell, 2003). Returning to the concept of sustainability agency (Teerikangas et al., 2021) enabled us to find theoretically derived labels to categorise the types of agency identified via our empirical analysis. This led us to use the concept of active agency to categorise our individual, organisational, and inter-organisational actors, given that they actively drive the circular transition. Moreover, this led us to utilise the concept of relational agency to refer to professionals collaborating in ecosystems and organisations involved in inter-organisational collaboration. In summary, this abductive approach led us to develop a two-dimensional typology (see Table 24.2), where one axis represents levels of analysis, while the other axis represents forms of CE agency as active and/or relational agency. In the next section, we present our findings.

Findings on CE actors and their agency

In this section, we present our abductively derived findings on CE agency, while embedding our findings onto relevant literature. First, we discuss how active individuals drive circular transitions as citizen-consumers (based on study 2) as well as in the work roles of professional change agents and top managers (based on study 1). Second, we detail the relational agency exercised by professionals and managers involved in the making of a CE ecosystem (based on Study 3). Third, we study active companies engaged in catalysing CE transitions (based on study 1). Fourth, we analyse the relational agency of organisations as they engage in inter-organisational collaboration to steer the CE transition (based on study 1).

Active individuals driving the circular transition

Citizen-consumers' agency

Both a hesitant company culture and consumers' lack of interest or awareness toward CE choices have been recognised as explaining the slow diffusion of CE models (De Jesus & Mendonça,

2018; Kirchherr et al., 2018). It is therefore important to explore examples of proactive change-making among active citizen-consumers. At the individual level, circularity is not only about correct recycling, but importantly about precycling – the systematic prevention of waste and sustainable handling of resources (Greyson, 2007; Klug & Niemand, 2021). In everyday life, this translates into curbing personal consumption, the careful planning of purchases in favour of durable and repairable items, the reuse and repurposing of goods, the renting/borrowing of infrequently needed items, minimizing waste by purchasing in bulk with minimum packaging, and eliminating unnecessary plastic waste. In other words, circularity in everyday life implies profound lifestyle changes. Therefore, both educational and policy support are needed to enable such widespread societal change (Edbring et al., 2016; Korsunova et al., 2021).

At the same time, much of the progress towards circular transitions is claimed to be happening from the bottom up, initiated by civil society and NGOs with the aim of changing legislation and encouraging the involvement of private actors to support circularity (Ghisellini et al., 2016). Understanding the dynamics, dependencies, and tensions between the different actors in circular transitions can shed light on the levers for accelerating the transition process. Although CE-minded actors are emerging among producers and civil society, the misalignment with traditional market players may lead to reconfigurations of actor roles across the systems of production and consumption (Laakso et al., 2021). In interviewing active citizen-consumers (study 2), we found them to engage in prosumer and eco-influencer agency, as detailed next.

Prosumer agency. Initial insights from the interviews with followers of a zero-waste lifestyle in Finland illustrate the dependencies and tensions arising between change-making consumers and conventional ones in implementing everyday circularity. While some local niche manufacturers, such as small businesses offering alternative products, have started to produce alternative personal care products, such as shampoo soap bars with minimal cardboard packaging, these are mainly available in specialised eco-shops and online stores. Meanwhile, mainstream retailers continue to offer personal care products packaged in plastic. As online purchasing requires anticipating a need and placing an order in advance, this practice is more cumbersome than visiting a convenience store on the corner. Frustrated with higher pricing and limited availability, some zero-waste followers have started making their own products at home, such as deodorants, to ensure their own supply and minimise packaging waste:

> When I got interested in Zero Waste and really got into it, I found all those instructions and decided to try out making stuff myself. . . Maybe it was exactly about avoiding all the plastic and at the same time, finding affordable options. And also, the fact that you know everything that you put inside the self-made deodorant. Maybe I'm that kind of person who always wants to try out whether something works, and I tend to question what is being marketed to us.
>
> (26-year-old eco-influencer)

While they may still purchase the ingredients for their products from conventional stores and, in that way, fulfil the traditional consumer role, these pioneering citizens also turn into producers, thereby bypassing their dependency on traditional suppliers. Hence the 'prosumer' term, which has been earlier used, for instance in the energy context, refers to citizens producing their own energy from renewable sources (Ruostetsaari, 2020).

Eco-influencer agency. In addition, followers of the zero-waste lifestyle often blog about their experiences, recipes, successes, and failures in an accessible manner, engaging with different audiences, and thereby facilitating circular transitions. This kind of informal education through

blogging is an example of media use for civic and democratic purposes, practising responsibility and citizenship, described as 'citizen-consumers' (Wallis & Buckingham, 2013). Other citizens may find it fashionable and interesting to try out the practices and lifestyles of influencers/bloggers, while market actors, including producers, can learn from such influencers' experiences for product/service development. Fischer and Newig (2016) argue that interactivity, relationality, and embeddedness in society facilitate the flexible reconfigurations of roles, extending the agency of the actors.

As circular transitions are progressing, traditional market arrangements will experience increasing pressure from change-seeking actors (Loorbach, 2017). The ongoing reconfigurations of roles require that all the market actors reconsider their activities and value propositions, adjusting to the needs of circularity-driven lifestyles. It is already evident that CE implies that individuals be active in the trading, reselling, reusing, and remaking of goods – foregoing the one-dimensional consumer role. In the context of CE, we illustrated how proactive citizen-consumers become prosumers, thus practicing citizenship by engaging in the making of products for personal consumption, while engaging as eco-influencers in sharing their recipes and experiences via personal blogs in a charismatic manner.

Professionals' change agency

In this section, our focus shifts to individuals in professional roles (i.e., not teams), as change agents who initiate, lead, or take responsibility of making change happen (Caldwell, 2003). As change agents, professionals in private and public organisations take on a powerful role in initiating, managing, and leading such changes by motivating and inspiring others to act (Carroll et al., 2008). Professionals' change agency refers to one's ability to pursue goals via value-driven action (Sen, 1985; de Haan & Rothmans, 2018) that goes beyond self-interest (Crocker & Robeyns, 2012). While such change agency essentially involves leadership, it is not necessarily tied to a managerial position. Instead, change agency is also possessed by individuals in non-managerial positions who enable and initiate bottom-up changes towards CE.

A tensional experience. Our interviews (study 1) reveal the duality of the change agency experienced by professionals who act to initiate and lead changes towards CE in front-runner companies. This duality is created between their willingness and passion for change set amid often unsupportive environments. On the one hand, they have a strong commitment to and motivation for CE, perceiving themselves as missionaries for this change. On the other hand, they struggle in their change agency, especially when handling problematic instances, such as resistance to change, lack of support from societal structures or ignorance of CE. The following quotes exemplify the duality in change agency experiences amid interviewees:

> I do this [CE work] wholeheartedly and I believe in this. It is like a religious cult. And if I see that when I speak about this [CE] and if I'm able to get others to think differently and wake them up to this different kind of thinking, it is very satisfying. It brings strength to my own work and I'm very grateful for it.
>
> (Manager, textile firm)

> Sometimes you encounter parties that are very resistant to change and very eager to be upfront about it. If someone does not believe in something [CE], I still don't find it appropriate to push others down.
>
> (Manager, construction firm)

As exemplified in the previous quotes, problematic situations arise, for example, from resistance to change and societal structures hindering CE-related change, but also from a tension between non-spoken idealistic expectations and the reality of change agents' practice on the ground. At a personal level, this means that the change agents must navigate between their identity as active and enthusiastic actors while being victims of surrounding circumstances limiting their potential to act. Such realities of agency also result in rather negative emotions among these actors, such as frustration and exhaustion.

Top managers' agency

Top managers bear a central role in shaping their companies' sustainability strategy and performance (Koistinen et al., 2022; Salaiz et al., 2021). In this section, we appreciate how top managers in front-runner CE companies, via their active agency, engage in furthering the circular transition. Given their institutional role, top managers' agency is closely connected with their access to and use of power (Koistinen et al., 2022). To this end, top managers' career development and character traits explain how they gain access to formal power. As they have secured their managerial positions, they exert power through their institutional position. Finally, we find that despite their formal power position, top managers' practiced power is set amid a bi-directional movement between their agency and the surrounding structure (e.g., organisation, sector, or society).

Career paths with meaning. Our findings imply that top managers' career paths explain why they become involved with CE. The interviewed top managers of front-running CE companies had adopted career transitions to develop CE in their companies (study 1). Yet, top managers do not necessarily make these career changes out of a pure interest towards CE. Occasionally, top managers either drift to CE-related professions or they make career turns to further their professional or financial career development.

Career changes thus acted as individual-level drivers in the transition toward circularity. It is via career choices that top managers gain access to positions vested with formal power. Thus, top managers' career paths capture the interplay between their agency and prevailing structures amidst a circular transition. Taking a closer look, top managers' interest in CE and the experienced meaningfulness increases while working with circularity. Executives' career choices and growing meaningfulness embody their role as active CE agents, as illustrated next:

> On my behalf, I want to contribute to the state of the globe and future. The meaning of this work is that large. On daily basis, I believe I am doing good deeds.
>
> (Top manager, environmental service company)

Character traits. Top managers' personality traits offer micro-level insights as to why they engage in CE. In our analysis, the interviewed top managers were characterised as pioneering, problem-solving, and resilient. These traits enable them to access and thrive in demanding positions. Such personality traits underlie their active agency in the structuration towards circularity. As an example, one top manager discussed how his pioneering attitude has resulted in their company becoming a CE trailblazer in Europe:

> We are pioneers in Finland. Actually, I would argue that in Europe too. . . and I have led this pioneering work.
>
> (Top manager, services company)

Power position. Top managers enable circularity by leveraging the power vested in their managerial position. They steer their companies towards circularity despite the possible risks. The top managers use their roles to enable circularity by communicating about CE while balancing between cooperation and competition with stakeholders. Doing so, they engage in an active interplay between their agency and societal structures. This is illustrated in the following excerpt of a board chairman, who emphasises how long-term cooperation can outweigh short-term monetary profits. Therefore, despite the financial threats, he exerts his executive power in the company by engaging the organisation toward long-term cooperation to drive CE:

> Euros are not our only motivation. Rather, we see that we are building a brand and we are being transparent. We are building a relationship grounded on trust and cooperation. In the upcoming years, this will create a market and will translate into profit.
>
> (Top manager, construction company)

In summary, top managers are perceived as the most powerful members of a company, and they play a key role in implementing sustainability strategies. Despite this position of formal power, their agency is dependent on structural constraints within their companies, in the industry, and society at large. For example, their power in shaping the circular transition in companies depends on their ability to secure business profitability.

Professionals' relational agency via orchestration

In this section, the focus shifts toward relational agency (Burkitt, 2015; Emirbayer & Mische, 1998), whereby agency is conceptualised as an interactive process rather than an individual capability. In this view, CE agency occurs as mutual responsiveness of agents in interaction, negotiation, and collaboration with a broad spectrum of stakeholders. Agency is being viewed through the activity of orchestration: mobilising multiple, diverse stakeholders across organisational boundaries in innovation networks (Reypens et al., 2021; Ritala et al., 2009). This section offers micro-analytical insights on an orchestrator catalysing the CE transition.

Orchestration is being viewed by using the lens of ethnomethodology and conversation analysis (Sacks, 1992) for studying the micro-level processes of social interaction. Through this lens, agency occurs in social encounters, as individuals enact their agency with others in their talk and embodied interaction. The question in this view becomes, When and how does an orchestrator act in relation to other participants, and how do the other participants in turn orient themselves to the orchestrators' actions and make them relevant? An empirical example is used to demonstrate orchestration in interaction. The data has been recorded from a meeting for developing a circular urban area in Finland. In the meeting, the employees of a circular ecosystem representing a city and companies aim at co-creating energy solutions (study 3). The relational properties of orchestration are presented in the following sequence of six minutes of recorded online talk (transcript simplified).

Prompting for orchestration

Towards the ending of the meeting, energy firm employee (EN) and landowner company representative (LA) are discussing the contracting of future energy solutions. The context of a

multilateral partnership poses challenges for contracting, thus the employees express explicitly their hesitation to proceed in the situation (Energy solutions, 1:17:15–1:17:55):

01 EN: But hmh we are now kind of waiting for that how it now seems to be forming [...]
02 LA: Maybe the content of the {firm's} letter of intent was maybe in any case sort
03   of more binding for the {firm} than us so I don't believe that it like is on
04   our behalf obligatory

The extract shows how orchestration is being prompted for responding to the problematic state of affairs. The orchestrator's resulting actions are illustrated next.

Enacting orchestration

After being prompted by previous speakers, a city employee, assuming the role of an orchestrator intervenes in such a way that is specifically designed to mobilise the other participants over organisational boundaries. The orchestrator uses a specific form of talk, storytelling (Mandelbaum, 2013), to enact orchestration in interaction. The orchestrator's turn is three minutes long, consisting of several components (Energy solutions, 1:19:09–1:22:25):

1 The orchestrator (OR) launches storytelling by referring to her personal history and stance on the subject matter:

   01 OR: Yes, back in the day when we started talking, I've also been calling for
   02   the tripartite contract model [...]

2 The orchestrator makes the current situation problematic by reiterating the problems that a public organisation like the city has in regard to contracting:

   03 OR: Although the city has committed itself to the circular economy in many different ways
   04   the double decision-making by the public administration makes it difficult to
   05   commit [.. .]

3 The orchestrator proposes her own solution for how to solve the problem:

   06 OR: The old contract model, which was [...] so if it could be done bilaterally by the {firms}
   07   then I would see it as a good thing [...]

Here, the storytelling structure serves as a means for "offering something that does something now, i.e., describes, explains, accounts for, our current circumstances" (Sacks, 1992: II: 465). The orchestrator's actions illustrate purposeful action to influence on hesitant ecosystem partner representatives.

Recipient responses

The last excerpt shows the consequences of the orchestrator's action in the responses of the other participants. The excerpt shows how the energy firm and landowner representatives respond with a changed understanding of the situation and move to finding ways forward in contracting (Energy solutions, 1:22:54–1:23:21):

01 EN: *So I would see that it still isn't necessary to bury maybe the letter of intent*
02   *matter.*
03 LA: *It can be [...] could it even then like be updated in a sense even closer to*
04   *concreteness when you have designed further [...]*

Moreover, there is an important change in the way the participants express their belonging to a collaborative group. In this excerpt, the speakers enact the so-called 'division of labor pattern', complementing each other in interaction (Couper-Kuhlen & Etelämäki, 2014). The activity of the orchestrator has thus important consequences for membership categorisation (Pomerantz & Mandelbaum, 2004), which is an important catalyst for collaborative and emergent organising.

To conclude, relational agency and the interactive view bring to the fore the tacit dimensions of the social catalysts for change. The orchestrator's influence on the thinking and group formation processes in emergent partnerships and ecosystems provides an important domain for further exploration of the catalysts for collaboration in CE transitions.

Active companies driving circular transitions

Our analysis of front-runner CE companies (study 1) led us to inductively categorise their agency in catalysing CE transitions as strategic, organisational, innovative, communicative, market-shaping, financial, and location-based agency, as presented next.

Strategic agency. At the core of companies' sustainability agency was a clear vision of how CE manifests in the future, this steering the company's long-term activities and promoting business longevity, if the vision was also shared by the industry and regulators. Strategic agency coupled with research into CE indicators offers tools to monitor performance (Elia et al., 2017).

Organisational agency. Taking part in the circular transition requires alignment between the company's strategic goals and its operations. While top managers develop strategy, including CE, the entire organisation then needs to adopt this strategy:

> The need for it [CE] yes was identified at the top management level. It is maybe a necessity that a company makes changes as well. At the moment, it goes through everything, from material selection, application, and processes.
>
> (Business director, consumer goods)

It is recognised that ensuring new innovations within organisations and implementing CE strategies is tied to employee engagement (Veleva et al., 2017).

Market-shaping agency. Companies combined different means to make an impact, varying from achieving a leading position in the market, initiating or participating in pilot projects, investing in their own or others' CE ventures, and affecting demand by offering new CE solutions or requiring them from suppliers. At the core of a market-shaping agency was an interest in different stakeholders' CE needs:

> We have learnt that people are different; they think differently, and, for different types of people, there need to be different types of models to enable that CE. They won't do it the way we want, but we need to offer them the possibility to take part in CE in their own way.
>
> (CEO, online flea market)

Innovative agency. Innovation was recognised as the most common denominator in the numerous ways new solutions and technologies were developed for advancing the CE transition, including product development, research, the re-planning of operations and processes, applying novel technologies in existing practices and products, and ideating and offering new venues to utilise one's own or others' reusable or recyclable material flows. Yet while innovations play a key role in CE transition, they need to be tied to strategic alignment and employee engagement (Veleva et al., 2017).

Communicative agency. Corporate communication, in particular two-way communication, helps to raise awareness and shape the attitudes of internal and external stakeholders regarding CE. Improving internal knowledge on CE and sharing this knowledge with external commercial or public actors is also a means to further the CE transition. Persuasive communication strategies in promoting CE have been recognised as key elements in overcoming attitude-related barriers (Muranko et al., 2019). Furthermore, multinational companies recognised that they can positively affect their external political environment by lobbying and acting as facilitators.

Financial agency. A healthy financial balance sheet reflects a company's ability to catalyse a CE change through the markets. Thus, companies need a sufficient bottom line and resources before they can undertake a more active role in supporting other actors in the CE transition. To achieve this, measurement tools are needed that appreciate the CE. The literature often discusses CE together with traditional linear economy measurement tools, such as cost leadership, differentiation, operational performance, and efficiency (Mura et al., 2020). In addition, some have proven the benefits of adopting CE strategies via modelling, thus providing quantitative data as evidence (Alizadeh-Basban & Taleizadeh, 2020). While some of the linear measurement tools and proof may help to support the initial steps of the circular transition, they do not consider the vast changes required nor the long-term nature of the transition. As such, there is a need for CE-based measurement tools supporting the promotion of CE among internal and external stakeholders:

> For me, the biggest disappointment and challenge has been finding funding [for their technology-driven company] … It requires a mentality change within the financing field that there comes this impact point of view that means that they need to accept that the profits will come in a longer time frame.
>
> (Founder, a machinery manufacturer)

Location-based agency. Some organisations found it easier to practice circular business in geographical areas where distances between actors were not too great and population densities were higher. This offers urban areas and growth centres an edge in terms of circular business initiatives.

Companies' relational agency via collaborative inter-firm agency

Beyond individuals exhibiting relational agency when working with others, we observed companies to also do so. Due to the systemic nature of the circular transition, companies need to engage in collaboration with other companies to deliver CE solutions (Bressanelli et al., 2018; Ghisellini et al., 2016; Ormazabal et al., 2018; Ruggieri et al., 2016). Based on our interviews with front-runner companies (study 1), companies collaborated to foster CE 1) with their existing partners, competitors, and networks and 2) by forming new networks.

Collaboration in existing networks. To begin, companies exercise their CE agency in their existing networks via knowledge and information sharing (Sudusinghe & Seuring, 2022), innovations, and collective action (Fischer & Pascucci, 2017). Companies need to share information, as CE connects organisations with different needs and expectations across the value chain. By sharing relevant information along the value chain – be it changes in regulation or design – different actors become aware of and can prepare for such potential changes:

> The regulation and legislation at this specific area is unclear. This affects how we can develop our products, and how we can instruct our clients. [to overcome this difficulty] we have been building collaborative networks along the value chain, to reach our customers and customers' customers, [for the relevant] information to flow up and down the chain. [This exchange of information concerning] the current and potential future needs is needed, for furthering CE.
>
> (Plastics sector representative)

Collaboration between competing firms has also been a spark for new innovations, while sharing information openly is considered as a key component of the circular transition:

> We want to believe that we do not hide information but rather give it directly to our competitors. . . there was this company that you could see as our competitor but on the contrary, we gave them information and they gave us information and that healthy competition increases innovation, and you avoid doing the same things and gives the work substance.
>
> (Founder, construction company)

Companies can also join forces and act collectively. Such collaboration aims to bring about consensus regarding the best practices within the industry (e.g., via federations). As the CE is an emerging paradigm, new ways to organise business as well as general rules and guidelines are lacking. Finding common ground helps companies make sense of how they could implement, realise, and benefit from a CE.

Collaboration via new networks. Companies also realise a CE-supportive agency via new networks (Brown et al., 2020) by creating new connections, building CE-supporting infrastructure, and creating a modus operandi enabling CE to be within their sector or outside of it. Inter-company connections provide companies with new opportunities to deliver CE via complementary competences. Value-chain collaboration enables developing infrastructure that accommodates functioning CE operations for multiple actors. For example, material flow supporting infrastructure can be used for other purposes than waste, while companies can seek means to utilise the side streams of waste. Last, by collectively creating a modus operandi (e.g., via councils), companies can act toward the formation of common norms and guidelines for CE operations benefitting the business landscape at large:

> In order to move forward, we need the references, which require investments, which require financing. So now we have this CE plant with (company x and company y) in the making, which is going to be used to show that the closed-loop solutions work.
>
> (Recycling management company representative)

In summary, inter-firm collaboration in existing value chains aims to adjust the industry to meet the changes created by CE, whereas emerging collaboration in new networks aims to

introduce new norms for conducting business through CE. Put differently, in existing inter-firm collaboration, CE is introduced as a novelty in the existing value chain, while new modes of inter-firm collaboration tend to become framed around emerging CE solutions and infrastructure. In the latter, CE binds the companies together around a shared purpose. Interestingly, the mode of collaboration is different with existing partners (via value chains) versus new partners via networks and new value chains. Based on the findings, it seems that inter-firm collaboration is a way to bridge the gap created by different types of inadequacies, mostly due to the novelty of the CE business model.

Discussion

In this chapter, we have explored the roles and agency of individuals and organisations engaged in catalysing circular transitions. The main contribution of this chapter is in extending the concept of sustainability agency (Teerikangas et al., 2021) into the CE context, and to this end, developing a typology of CE agency (see Table 24.2). Beyond explicitly recognising the role of actors in shaping the circular transition, we hope that the typology of CE agency supports scholars and practitioners in appreciating how actors can catalyse the CE transition.

Comparing with and building on the generic concept of sustainability agency conceptualised as the interplay of individuals', active actors', relational agency, and governance (Teerikangas et al., 2021), CE agency bears these four elements, though building particularly on active and relational agency, as detailed in the next section. Similar to sustainability agency, CE agency is also a multi-level phenomenon, occurring at and across multiple levels of analysis. While sustainability agency relates to any type of sustainability work, CE agency focuses on actors and their agency in furthering the circular transition. Theoretically, the role of agency in the transition towards a CE reflects onto structuration theory (Giddens, 1984). CE agency is set amid a negotiation between the agency of individual, organisational, and inter-organisational actors as they seek to change the prevailing regime and structures. The latter's resistance and path dependency create frustration for those seeking to make a difference. This leads to a view of CE transitions as structuration processes, wherein the agency of individual, organisational, and inter-organisational actors is shifting the balance from a linear economy towards CE. This transfer appears to be an ongoing, cumbersome, and fragile process.

Our typology of CE agency conceptualises active actors and their agency in shaping CE transitions via two dimensions. First, the typology builds on individual, organisational, and inter-organisational levels of analysis. Second, two types of agency are at play: active agency (Teerikangas et al., 2021) as exercised via an actor's role (Emirbayer & Mische, 1998) and relational agency exercised in interaction with others (Aylett, 2015; Burkitt, 2015). While active agency refers to individuals and organisations actively taking a stance on and steering CE transitions, regardless of whether they hold a formal position of power or not, relational agency refers to the fact that, in CE, as in sustainability transitions, change occurs in collaboration with other individuals and organisations – be they existing or new partners. We do point out that though our two-dimensional typology conceptually distinguishes between CE agency as it regards level of analysis (y-axis) and form of agency (x-axis), these are in practice intertwined (Archer, 1988).

Zooming into our typology, the distinguishing features of CE agency per level of analysis are as follows. One characteristic of CE agency is the multiplicity of roles that individuals adopt when they actively engage in the making of circular futures. At the individual level of analysis, we distinguish between actors engaging in circular transitions in private consumer-citizen and work roles, such as professionals or managers. This distinction deserves recognition, as prior

research in marketing, management, and CSR has studied these roles separately. Yet, in CE settings, these roles become at best enmeshed, as citizen-consumers' prosumer agency is needed, as the prevailing societal regime and structure do not enable living in a CE-based lifestyle. Citizen-consumers can be active in the trading, reselling, reusing, and remaking of goods, thus foregoing the one-dimensional consumer role. In addition, citizen-consumers can actively engage in shape-prevailing structures as eco-activists. Second, professionals shaping the circular transition as change agents experience a paradoxical agency, as their commitment and engagement contrasts with the resilience needed to maintain one's change agency in the face of resistance and setbacks. Third, managerial agency relates to those in formal, power-vested roles. Top managers exercise their agency via career choices, personality traits, and their formal position of power. Through their role, they actively engage in structuration toward a CE. Fourth, professionals and managers support circular transitions by engaging in the development of circular ecosystems that can combine public and private sector organisations (Aarikka-Stenroos et al., 2022; Hirvensalo et al., 2021). In interactional settings, agency takes the form of relational agency, as ecosystem participants become orchestrators of emerging circular ecosystems. Summing up, these findings recognise individual-level circular agency as occurring in numerous roles, and importantly, beyond those formally in manager and decision-maker positions. In so doing, CE agency reflects the characteristic of shared (Sweeney et al. 2019) and responsible leadership (Miska & Mendenhall, 2018) in that leadership can be enacted by anyone, regardless of one's formal power position.

At the organisational level of analysis, we observe companies to exercise circular agency via action within and beyond the company's remit. As active actors, firms exercise CE agency through strategic, organisational, market-shaping, innovative and communicative, financial, and location-based agency. In inter-organisational settings, companies connect with public or private sector organisations via existing value-chain partnerships and by actively forming new partnerships, networks, and ecosystems to adjust to and steer the CE transition.

In terms of limitations, this chapter focuses on active actors in a CE-pioneering country, Finland. Therefore, our typology of CE agency can be further developed in countries with different levels of CE maturity. Similarly, research on the CE agency of public-sector organisations, such as cities, institutions, and governments, is needed, as is an appreciation of CE agency in partnerships, supply chains, and ecosystems. While we focused on agency as human action, future research is also warranted combining the agency of humans and materials (Jokinen et al., 2021) alongside the agency of other species (van Dooren et al., 2016; Rupprecht et al., 2020) and nature (Soper, 1995), while recognising their interconnections (Plumwood, 1993). Finally, CE needs to be discussed against the broader systemic landscapes within which sustainability transitions and grand challenges, including climate change and biodiversity crises, occur.

Conclusion

In this chapter, we have explored how individual and organisational actors act as catalysts of the circular transition. The typology of CE agency we develop shows that when they do so, they exercise active and/or relational agency. The concept of agency set amid ongoing structuration processes highlights that while a circular transition is ongoing, everyone's agency shapes its direction and speed. While we have focused on proactive individuals, the circular transition is being slowed down by passive and/or ignorant actors maintaining the prevailing linear economy. Thus, the agency of all individuals and organisations acts either as a catalyser, maintainer, or suppresser of CE transitions. Until there is sufficient agentic push toward circularity, this paradigmatic shift will not materialise. This leads us to call for all actors to recognise and consider

their CE agency as exercised via everyday acts. Our chapter is a call for action. The time to act is now, for everyone.

Acknowledgments

Educational content

The CE transition calls for agency. Our chapter bears the following educational implications:

1 Our findings are a call for educational institutions, at all levels, to radically consider their role as enablers (versus disablers) of CE agency and CE transitions.
2 There is a dire need for education to catalyse an awakening of CE agency, as many actors still do not recognise the importance of CE transitions nor their role therein.
3 As regards active CE actors, many operate in isolation or might feel succumbed by the prevailing linear regime. There is a need for CE actor support, be it via networking, joining forces, or establishing support for emotional resilience and well-being.

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