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ORIGINAL ARTICLE

One transition, many transitions? A corpus-based study of societal sustainability transition discourses in four civil society's proposals

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Abstract
When the civil society makes 'transition' its label, it cannot be assumed that different civil society actors share compatible varieties of localist or radical transformationists discourses. This study has comparatively analyzed the discourses in four civil society sustainability transition proposals using a corpus-based methodology. We found that the proposals are similar as they identify the economy as an object and an entry point for transition, frame the economy as embedded in the socio–ecological system, ascribe agency to grassroots movements for transitions from the bottom–up. We also found crucial differences among the discourses regarding the role of the State, the degree of reform or radical innovation, the degree of imaginative character of the sustainability vision, the degree of opposition to capitalism. We suggest that insights on how the civil society employs notions of transition with respect to the themes of politics, emotions and place can help advance theorizations and practices of societal sustainability transitions led by the civil society.

Keywords Sustainability transitions · Civil Society · Social movements · Corpus-based discourse analysis · Transition governance

Introduction

Research investigating sustainability transitions has highlighted the decisive role of discourse in the dynamics of transition. Environmental and sustainability discourses are central in the politics and governance of transition. They also contribute to shaping social imagination, motivations, and the debate around development, sustainability and society's future (Hajer 1995; Dryzek 2013; Asara et al. 2015; Audet 2014, 2016).

This paper examines sustainability transition discourses in the proposals developed by four organizations: Great Transition (proposed by the Great Transition Initiative), Great Transition (New Economics Foundation), Commons Transition (Commons Transition Network) and Transition (Transition Towns Network). These four proposals are appropriate cases to investigate the potential similarity of sustainability transition discourses and also to reflect on the translation of notions of transition to practice and to societal, rather than sectorial, change toward sustainability. First, they articulate forms of sustainability transitions and have had substantial international resonance. However, second, to the best of the authors' knowledge and, surprisingly, these proposals have developed essentially separately (Appendix 4). Thirdly, while they all employ notions of transition, they do not engage with transition theory as it has developed in academia (e.g., Grin et al. 2010; Loorbach et al. 2017).

Visions proposed by the civil society are important to study because the civil society has emerged as an important actor in sustainability transitions (Frantzeskaki et al. 2016). Although social movements increasingly use the

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term 'transition' as a label (Brown et al. 2012; Audet 2014), it is important to understand their discourses because differences, similarities and complementarities among discourses influence the ability of the civil society to come together in effective manners, to establish action- and discourse coalitions (Ingram et al. 2015), and thus to partake, or even lead sustainability transitions. Transition studies have traditionally focussed on specific socio-technical systems, but notions and theories of transition can be usefully extended and applied to societal sustainability transitions, i.e., transitions beyond single socio–technical systems (Chatterton 2016; Loorbach et al. 2017).

The understanding of discourse which underpins this study is based on the poststructuralist notion of discourse (Fairclough 1989), which, in turn, draws on the Foucauldian definition of discourse as a form of social practices which "systematically form the object of which they speak" (Foucault 1972, p 49). From this perspective, discourse is not just a referential tool that describes the social world; it is a symbolic means that constructs social realities through processes of naming, describing, informing, in short, through giving meaning to objects, situations and people. Language is the building block of discourse and the choice of language acts as a lens through which people, objects and situations are constructed. This lens will foreground certain features while marginalising others (see also van Dijk 1995).

Paying close attention to language and lexical choices in four sustainability transitions proposals studied here can, therefore, shed light on the similarities in lexical choices, and lexical differences offering nuanced insights into their visions of sustainability transition.

Specifically, this study compares discourses in four sustainability transition proposals that have emerged in the civil society in the past decade. In contrast to previous mostly qualitative research, this study utilizes a novel corpus-based discourse study approach which combines quantitative and qualitative techniques and is increasingly used to explore discourse in large collections of textual data. To our knowledge, this approach has not yet been used to study transition discourses. The main questions which this research addresses are:

1. To what extent and in what ways are these sustainability transition discourses similar, or do they differ?
2. How can these discourses stimulate further advancement of transition studies, with specific focus on societal or global sustainability transitions that are led by the civil society?

This paper contributes to the emerging research agenda (e.g., Kothari et al. 2014; Escobar 2015; Luederitz et al. 2017; Beling et al. 2017) that aims to make complementarities among different discourses fertile towards a global socio–ecological transition to sustainability.

Sustainability transition discourses

Role of discourse in sustainability transitions

Discourse is central in generating new and alternative imaginaries of the future and in making previously unthinkable alternatives plausible and conceivable (Kallis and March 2015; Fløttum et al. 2014). Princen (2012) argued that if a transition to an "economy of care and connection" is to be made, this move will necessarily involve adopting "a language that emphasizes connection, not mechanistic exploitation of nature" (ibid: 8). A language of connection and regeneration has become prominent in a range of transition discourses that have emerged from the civil society worldwide (Escobar 2011, 2015).

While discourse plays a crucial role in forming ideas about possible and alternative futures, it can also expose the 'discursive vulnerability' of particular socio–technical regimes and thus contribute to their undermining (Bosman et al. 2014; Roberts 2017). More ambitiously, some transition discourses inform attempts to radically change entire socio–ecological configurations by positing a radical "transition to an altogether different world" (Escobar 2011, p 138) and, can, thus be seen as part of ontological struggles that refer to a different way of imagining life beyond modern capitalist societies (Escobar 2011, 2015).

Discourses also matter in framing and identity making and have been shown to influence the level of engagement in collective mobilization for sustainability (Feola 2014; Russi 2015), household or individual pro-environmental action (Hagbert and Bradley 2017), as well as the establishment of coalitions for or against change (Hajer 1995). Along the same lines, Loorbach et al. (2016) highlight the importance of discursive framing as social construction of sustainability transitions in that it "can give rise to the potential for (seemingly) short-term pressures to become game changers", and for combinations of specific events to "help to orient, legitimize, guide, and accelerate deep changes in society" (Loorbach et al. 2016, p 15).

Discourse and the role of the civil society in the governance of sustainability transitions

Competing visions of sustainability transitions have emerged in the past decade including green growth, the green economy, and degrowth, among others (Bina 2013). As shown by various authors, tensions exist among these emerging proposals, which appear to be a consequence of seemingly incompatible discourses (e.g., Bina 2013; Kothari

et al. 2014; Feola 2015). Audet (2016) identifies localist as opposed to technocentrist discourses, with distinct emphasis on either crisis or opportunity, local actors or the State, bottom–up processes or incentive interventionism, and grassroots and policy or economic and institutional changes, respectively. Along similar lines, Stevenson (2015) distinguishes three distinct international discourses on sustainable development, namely Radical Transformationism, Cooperative Reformism and Statist Progressivism. Similarly to Audet (2016), Stevenson stresses the role of grassroots agents or the State, and of top–down or bottom–up processes of transition as distinguishing factors among discourses and adds the level of opposition to a capitalist system, to the imperative of economic growth, and to economic valuation of natural resources as further important elements that differentiate among the discourses. Dryzek (2013) classifies environmental discourses using the two binomials 'radical/reformist' and 'imaginative/prosaic'. He identifies four types of environmental discourses, namely problem solving (reformist and prosaic), sustainability (reformist and imaginative), survivalism (radical and prosaic), and green radicalism (radical and imaginative). While these typologies differ from each other, they highlight the coexistence of contrasting sustainability transition discourses.

Some authors have renewed calls for intersectional global action networks (e.g., Martinez-Alier 2012; Escobar 2011; Klein 2017) such as the World Social Forum, but others have been more critical. While global action networks create cross-scalar convergence across environmental issues and places, these convergence spaces are often contested (Routledge 2003). Visions of sustainable futures and of the transition processes often remain incompatible, while different movements may remain heavily territorialized in their struggles (Cumbers et al. 2008).

Tensions have been shown to exist at many levels. Some environmental movements are more civic or communitarian while others tend towards more confrontational and agonistic strategies (Kenis 2016; Feola 2014; D'Alisa et al. 2013). In fact, it cannot be assumed that environmental movements necessarily share the same or even compatible varieties of localist or radical transformationists discourses (Kenis 2016; Longhurst et al. 2016).

Despite diverging stances, many scholars suggest that discursive differences do not necessarily need to result in tensions, but may instead highlight the potential for complementarity among civil society's transition proposals. Dryzek claims that "complete discontinuity across discourses is rare, such that interchange across discourse boundaries can occur, however difficult" (Dryzek 2013, p 9). In a similar vein, Luederitz et al. (2017) call for the intensification of co-learning between transition pathway narratives by connecting compatible elements of different narratives to generate insights for broader transitions. Furthermore, Longhurst et al. (2016) argue that different discursive storylines can converge on specific points such as the resistance to neoliberal discourse. Discursive convergence, therefore, highlights potential synergies, and points of convergence can serve as bridges for strategic dialogue and cross-pollination across movements in sustainability transitions (Ingram et al. 2015; Beling et al. 2017). In what is perhaps a more radical approach, Escobar (2011) argues that there is an intrinsic value in accepting multiple transition discourses (pluriverse) as an essential ontological response to the culturally homogenizing force of modern capitalist societies (Escobar 2011).Yet, there is little empirical evidence of the specific points of similarity or difference and hence it is difficult to establish what kind of discursive bridges could enable co-learning and cross-pollination in the face of differences among civil society's sustainability transition discourses.

Methodology

Data: sustainability transition proposals

We examined four sustainability transition proposals made by four civil society organizations, as shown in Table 1.

Great transition (GTI) (Raskin et al. 2002) is a vision of a just and sustainable global future, and sets out to identify the requirements for a transition to a sustainable global society. The elements of the Great Transition proposal include egalitarian social and ecological values, increased human interconnectedness, improved quality of life, a healthy planet, and an absence of poverty and war. The

Table 1 Sustainability transition proposals considered in this study

Name of sustainability transition proposal (acronym)	Organization	Year started	Corpus (size in words)
Great transition (GTI)	Great Transition Initiative at the Tellus Institute (USA)	2003, relaunched in 2014	53,341
Great transition (GT)	New Economics Foundation (UK)	2010	54,191
Transition (TT)	Transition Towns Network (international)	2006	50,702
Commons transition (CT)	P2P Foundation and Commons Transition Network (international)	2014	60,998

term Great Transition originally emerged from the Global Scenario Group, an international meeting of scientists that was convened by the Tellus Institute and the Stockholm Environment Institute in 1995. GTI compares six alternative scenarios through narratives of plausible futures. The Great Transition scenario entails the establishment of new normative foundation based on the values of human solidarity, quality of life, and ecological sensibility to replace current individualism, consumerism, and domination of nature. Governance and economic institutions are to be redesigned upon this normative foundation. Given the complexity of interrelated social–ecological issues at multiple scales and levels, GTI calls for a global citizen movement to bring about systemic change.

Great transition (GT) (Spratt et al. 2010) is a comprehensive blueprint for building an economy based on stability, sustainability and equality. GT emerged in the aftermath of the 2008 financial crisis, and departs from the recognition that a transition is necessary, desirable and possible. The economic model based on free markets, endless economic growth, economic liberalization and the retreat of governments has not delivered in terms of environmental quality or life satisfaction. GT thus challenges notions of prosperity based on material accumulation and proposes visions of a good life within environmental limits, and fairness in society. GT builds on the ideas of (1) prioritization of social and environmental over economic value, (2) fairer share of wealth and work to reduce the social ills of inequality, (3) correction of market failures and reinstitution of State intervention for the public good, (4) decision making at as local a level as possible, (5) localization and autonomy, (6) restructuring of financial systems to help correct market failures and to support localization, and (7) connection of the national and international levels.

Transition (TT) (Hopkins 2011) seeks to deal with climate change and shrinking supplies of cheap energy (peak oil), as well as economic and financial uncertainty, by building community resilience. Transition is to be achieved through cooperation in the community, social learning and innovation promoted among all members of society. Thus, peak oil, climate change, and the economic crisis are considered not only challenges, but also opportunities for positive change in the community. TT builds on the creativity, motivation and knowledge that local communities have the potential to unleash. TT recognizes the need for working towards a transition at all levels, but a major focus is the local level through the notion of relocalization. This involves the diversification of local economies, the reduction of the dependency on unstable global markets and increasingly more expensive transport, and the willingness to take direct action, and to foster innovation capacity without waiting for national or local political institutions or the business sector to intervene.

Commons transition (CT) (Commons Transition 2015) "implies developing policies that create common value and facilitate open, participatory input across society, prioritizing the needs of those people and environments affected by policy decisions over market or bureaucratic considerations". The aim of CT is to realize an egalitarian, just, and environmentally stable society by basing society on the commons. The commons represent a mode of societal organization that evolve away from the competitive market State and centrally planned systems. CT has acquired a global orientation although it originally emerged from the 'Free/Libre Open Knowledge' project funded by the Ecuadorian Government to inform a strategy for a 'social knowledge economy' in line with alternative visions of prosperity such as *Buen Vivir*. Central to CT is the re-conception and re-alignment both of traditional commons and cooperative thinking and practice, into new institutional forms that prefigure a new political economy of cooperative commonwealth. This in turn is based on a simultaneous transition of civil society, the market, and the organization and role of the State.

The data for the analysis were collected from the websites of the four civil society organizations and included key policy documents and mission statements. In addition, we collected and transcribed video presentations given by the organizations' key figures. In this way, we collected textual data produced by the four organizations for dissemination purposes. This allows us to create comparable and coherent data sets and to investigate precisely the kind of discourses that the organizations attempt to get across to the wider public. Because each organization produced texts of different lengths, each corpus varies in size (see Table 1).

Data analysis: a corpus-based approach

To identify similar and different discourses in our data sets, we used a novel corpus-based approach to text and discourse analysis (Baker 2006; Grundmann and Krishnamurthy 2010; Jaworska and Krishnamurthy 2012).

A useful way of identifying a set of prominent discourses in a given corpus of texts is via a keyword analysis. In corpus-linguistic terms, a keyword is a word which is distinctive to a given corpus. This distinctiveness is established by comparing words' relative frequencies in the studied corpus with their relative frequencies in a usually larger and general reference corpus. Keywords retrieved in this way are seen as robust indicators of what a corpus is about (Scott 2010) and a useful 'entry' into the data in that they point to salient lexical items (concepts) and can highlight the existence of dominant discourses and ideologies (Baker 2004).

Another way of conducting a keyword analysis is to compare data sets against each other. This is often preferred by researchers who compare discourses across contexts. It allows them to tease out differences that exist between data

sets by simultaneously avoiding problems associated with a general reference corpus. This procedure is useful for teasing out discursive difference in a more precise way (Baker 2004).

Single lexical items such as keywords might point to dominant concepts, yet they tell us little about the kind of discourses that are associated with them. Collocations are analytical tools that can help us reveal values and associations attributed with a phenomenon in question (Stubbs 2001; Baker 2006).

Collocation is understood as a strong lexical association between two or more words and this association is established statistically through a measure of association or statistical significance testing (McEnery and Hardie 2012). Various statistical tests are used for this purpose. Log Dice, which we utilized in our study, is the most suitable metric for comparing collocations across corpora of different sizes as it does not (in contrast to other commonly used statistics such as Mutual Information or T-score) depend on the total size of the corpus (Rychlý 2008). This allows the researcher to have a consistent comparison measure across data sets of unequal sizes. Log Dice in the range of 7 and above indicates a strong statistical association and this cut-off point was considered in this study too.

Collocations established in this way are useful indicators of recurrent and typical lexical choices that are frequent and hence 'preferred' in a given data set. Such recurrent preferences are not just a matter of individual choices, but reflect established patterns of discourse in a given community of practice (Stubbs 2001).

Using a corpus-based approach, specifically keywords and collocations allow us to identify prevalent different and similar discourses in a systematic and consistent way across large amounts of textual data. In contrast to other techniques used in discourse analysis such as a priori coding of discourses, our approach is essentially data driven allowing for discourse categories to emerge from the data. Also, a corpus-based approach helps reduce some of the biases that a manual discourse analysis might introduce. An analysis performed using a dedicated software programme on larger amounts of textual data can reliably identify patterns of language use that might run counter to intuition or be simply not immediately visible to the naked eye. A problem with traditional discourse analysis is that the analysis (because conducted manually) might be prone to 'cherry picking' of features to prove a preconceived point (Widdowson 1998), while "swathes of 'inconvenient' data might be overlooked" (Baker and McEnery 2015, p 5). Because a corpus-based approach relies on automatic retrieval of frequency information in large amounts of data, it has the capacity to reduce the impartiality of analysis and present more objective and systematic insights.

To identify dominant similar and different discourses, we performed a keyword analysis using Sketch Engine and the normalized ratio of frequencies as the measure of keyness proposed by Kilgarriff (2005). All 4 corpora were first compared to the British National Corpus, which is a general reference corpus of British English. Using one reference corpus as a benchmark allows the researcher to reveal keywords that are both unique and also shared across corpora (Baker 2004). Unique keywords highlight the discursive specificity of data sets (difference), while shared keywords can point to similarities. As in previous research based on keyword analysis, the first 100 most distinctive keywords were scrutinized and compared across the 4 corpora to identify thematic differences and similarities. Because some of the keywords belonged to the same word family, had similar meanings and were just derivative forms, for example, 'economy', 'economic', 'economics' they were grouped together under a common word form (stem) (e.g., econom*). Finally, we performed a collocation analysis of selected distinctive keywords to see values and attributions associated with them. To identify discourses most distinctive to each proposal (differences), we performed a second keyword analysis comparing this time each proposal against the remaining 3 others.

Results

Discursive similarity

Five word forms are significantly more frequently used in all four proposals, and 16 word forms were frequently used in at least three proposals as compared to the British National Corpus (Table 2, and Appendix 1). Combined, the 21 word forms define a shared discursive space among the proposals.

Discursive similarity among three or four transition discourses

There are three main similarities among the discourses in the proposals analyzed in this study, namely the economy as an object and an entry point for transition, the economy as embedded in the socio–ecological system, and the civil society as agent of transition.

The economy is an object and an entry point for transition. In all discourses, the current *economic* system, both as a set of institutions and practices, and as a cultural model or paradigm, is identified as a core entity to be changed in a sustainability transition. Although discourses differ in part, as shown in Sect. 3.2, the strongest collocations of *economy*, *economic* and *market* across the 4 corpora point to certain problematic traits of the economic system including 'free' *markets*, destructive modes of *production*, and unlimited economic *growth*.

Table 2 Word forms shared by at least three sustainability transition proposals

Word form		CT	GT	GTI	TT
Community		x	x	x	x
Econom*	Economic, economics, economist, economy	x	x	x	x
Global		x	x	x	x
Resource		x	x	x	x
Trans*	Transition, transformation	x	x	x	x
Change			x	x	x
Climate/CO2			x	x	x
Creat*	Create, creation, creative	x	x		x
Energy			x	x	x
Grow*	Grow, growth		x	x	x
Market		x	x	x	
Model		x	x		x
Movement		x		x	x
Organization		x		x	x
Planet*	Planet, planetary		x	x	x
Produc*	Produced, production, productive	x	x		x
Social*	Social, socially	x	x	x	
Society		x	x	x	
Sustainab*	Sustainability, sustainable		x	x	x
Value		x	x	x	
Well-being			x	x	x

For example, three proposals GT, GTI and TT have *grow* as one of the strongest collocates of *economy* and of *economic*. Studying the use of the collocates in the vicinity of *economy* and *economic* suggests that in almost all instances, economic growth is seen as an unsustainable and destabilising societal force:

> "Economic growth may be the world's secular religion, but for much of the world, it is a god that is failing underperforming for billions of the world's people." (GTI).

> "… the idea that an economy grows forever and that growth is driven by energy by resources that we really can no longer afford to use in such a way." (TT).

> "The idea of a non-growing economy may be an anathema to an economist. But the idea of a continually growing economy is an anathema to an ecologist." (GTI).

> "… indefinite global economic growth is unsustainable, and explains why, when faced with the threat of climate change and other critical environmental boundaries we need to find a new economic direction." (GT).

Another shared collocation pair across three proposals is that of *free* and *market(s)*. CT, GT and GTI have market as one of the strongest keywords and free as its top collocate. Examining the use of this collocation pair in the proposals suggests a severe critique of free market rules:

> "…. the case makes it clear that our so-called free markets have been far from free. Rather, many people's freedoms are severely curtailed." (GT).

> "Nor is the social economy merely a collection of economic self-defense measures against the failures and depredations of the free market economy." (CT).

> "But once the boom resumed, many business leaders advocated a return to free markets and a weakening of reforms." (GTI).

Not only is the current model of economy conceived as unsustainable and a failure, it is also seen as the entry point for a broader sustainability transition in society. For example, three proposals GT, GTI and TT have *new* in the list of top collocates of economy suggesting an emphasis on major changes. GT stresses new ways of measuring economic performance revealing social and environmental impacts to motivate political action:

> "In designing a new economy, we would initiate a process to comprehensively map out what we collectively value […] Our well-being research tells us it is rooted less in material goods and more in the quality of our

relationships and the meaning we get from our work." (GT).

In a similar way, GTI highlights the importance of well-being and quality of life as priorities of a new economy:

"Deep, systemic change is needed to transition to a new economy, one where the acknowledged priority is to sustain human and natural communities […] to temper economic growth and consumerism while simultaneously improving social well-being and quality of life." (GTI).

On the other hand, TT places emphasis on the relocalization of the economy as an important step to transition to a more resilient and sustainable community:

"…we turn our vision and ideas into a tangible reality, initiating practical projects and starting to build a new, healthy economy in the place we live." (TT).

The economy should be embedded in the socio–ecological system. As can be seen, the critique of the economic paradigm, and the exploration of the potential for transition through the economy, is to a significant extent framed as a need to re-embed and re-connect the economic within the social sphere (social justice) and the environmental one (ecological limits).

The discourses emphasize the need to re-establish the primacy of the social over the economic sphere. These themes demonstrate the attempt to formulate a vision of the economic system as a means for achieving socially valuable goals, or prosperity, rather than as a goal in itself for which to sacrifice social value.

Another point of discursive similarity concerns the relations of the economy and the environment. The discourses highlight environmental concerns that are associated with the exploitation of limited natural resources, climate change, and energy systems, often at a planetary or global level. This becomes manifest through the lexical associations with *global* and *resources* that are keywords in all four proposals. GT and TT in particular link *global* with environment, specifically climate change, global warming and carbon emission. Interestingly, this discourse around environment as a global issue is less prominent in CT, which emphasizes more strongly global action as evidenced by the top collocations *networks*, *cooperation* and *approach*. In terms of resources, CT, GT and GTI see resources mainly as natural resources that are scarce as emphasized through the collocations *natural*, *scarce* and *scarcity*. On the other hand, TT sees resources as tools of training and resilience (see Table 2).

Finally, the discourses are similar in that they point to the central role of *community* in sustainability transitions, often in the form of a local or *global network*. Organized communities have the capacity to motivate, organize and support collective action, and spur collective creativity to innovate and identify solutions for sustainability. Perhaps unsurprisingly given that the four proposals emerged from the civil society, the notions of *community*, *organization*, *movement*, and *creativity* are keywords in all four proposals representing a shared notion of sustainability transition from the bottom-up, although this may not be the only force to determine a transition.

Discursive similarity between pairs of transition discourses

As shown in Table 3 and Appendices 3 and 4, 49 word forms are more frequently used by two transition discourses than in the British National Corpus, in addition to the word forms illustrated in Table 3. These words give us important insights into discursive bridges across pairs of discourses.

While discourses of environmental concerns, and therefore environmental sustainability, are prominent in three proposals (GT, GTI and TT), GT and TT particularly share

Table 3 Word forms shared between pairs of sustainability transition proposals

	GTI	GT	TT
GTI	–	–	–
GT	Billion; consum* (consume/consumerism/consumption); crisis; ecological; ecosystem; environment; equ* (equal/equality/equity); impact; po* (poor/poverty); reduc* (reduce/reduction); rich; scenario; shift	–	–
TT	Challenge; culture, future, vision, strategy	Carbon; emissions; focus; food; local; need; oil; our; outcome; people; renewable; resilien* (resilience/resilient); United Kingdom; we	–
CT	ci* (civic/citizen); development; generat* (generate/generative); governance; institution* (institution/institutional); ownership; policy; solidarity; technology	Public	Collective; currency; develop; emergence; enterprise; network

the terms *oil, emissions, carbon, renewable*, which point to a focus on energy systems and climate change. GT and GTI, instead, share the terms *ecological*, *ecosystems*, *environment*, which relate to more general concerns about ecosystem functions and environmental degradation. In this respect, GT is a more extensive discourse than TT or GTI. The following extracts are indicative examples of this pattern:

> "The damage to ecosystems has now resulted in a largely irreversible loss in the diversity of life on Earth." (GT).

> "By sharing our resources more equally, by building better communities and a better society and by safeguarding the natural environment, we can focus on the things that really matter and achieve genuine and lasting progress with higher levels of well being." (GT).

GT and GTI similarly critique the inequality and injustice reproduced through the global growth-oriented economic model as evidenced by the shared keywords *poverty, rich, inequality and equity*. Interestingly, these two discourses also coincide on framing the challenges of unsustainability as *crisis*, and on the *reduction* of *consumption* and (environmental) *impact*, as part of the solution to this crisis.

Various pairs of discourses are also similar with respect to aspects related to the agents of transition. In particular, CT and GTI tend to use the term *citizen*, but GT and TT more frequently refer to the agents as *people* (or *community*). This reflects a stronger emphasis in CT and GTI than in GT and TT on civic sense as a motive for collective action, on fundamental rights (and obligations) within a political and institutional system, and on political dynamics in sustainability transitions. Furthermore, GT and TT also frame grassroots action at a local dimension and more often in the first person (*we, local, UK*), whereby local action is a response to the global challenges identified in all four discourses. Interestingly, GT and TT are also the two discourses that, while internationally spread, are historically rooted in the United Kingdom.

> "Achieving the Great Transition will require us to jump together: to make changes to our own lives, to push the government for radical reform and then to be prepared to see these changes through. We need to be in this for the long haul to keep our eyes on the bigger picture, the long horizon and the ultimate prize." (GT).

> "Being part of a network means we can create change more quickly and more effectively, drawing on each others' experiences and insights." (TT).

A core role in sustainability transition is attributed to organized collective action. CT and TT are similar with respect to the organizational form (*collective, network*), the related ontology of change (*emergence*), and a proactive engagement in the alternative economy that is emerging from the grassroots (*currency, enterprise*), as reflected for example in the establishment of cooperatives (Common Transition Network) and in the REconomy project (http://reconomy.org, Transition Town Network).

Finally, it is interesting to note that, while all discourses are forward looking, GT employs a relatively objective scientific framing (*scenario*), TT does not, and rather employs the term *vision*, which relates to culture, planning and motivations at individual as well as collective level. GTI employs both the terms *scenario* and *vision* and, therefore, in this respect, shares similarities with both GT and TT.

Discursive difference

Table 4 shows a selection of distinctive keywords in each sustainability transition proposal (Appendix 3 presents a full list of the first 100 most distinctive keywords in each proposal). These word forms indicate elements that make each discourse most significantly different from the other three discourses, and, therefore, help us identify potential points of discursive difference among the four selected sustainability transition proposals. Often the distinctions are a matter of emphasis on a continuum, rather than a matter of presence vs absence, as the fact that some words are not identified as

Table 4 Distinctive keywords of the four sustainability transition proposals

Proposal	Distinctive keywords
Great transition (GTI)	Corporate, corporation, crisis, ecological, environment, environmental, global, globalization, growth, historical, history, human, international, ownership, planetary, poor, poverty, reform, scenario, sustainability, sustainable, trade, world
Great transition (GT)	Climate, economics, economist, income, inequality, level, people, planet, price, UK
Transition (TT)	Charitable, charity, do, energy, feel, food, group, happen, here, network, oil, peak, people, place, plan, together
Commons transition (CT)	Base, capital, capitalism, capitalist, civic, civil, common, commoner, commons, commons-based, control, co-op, cooperation, cooperation, cooperative, co-operative, cooperativism, creation, distribute, economy, enterprise, entrepreneurial, ethical, form, innovation, knowledge, model, open, partner, private, production, productive, profit, sector, service, social, solidarity, state

distinctive keywords does not mean that the words are not used at all.

Great transition (great transition initiative)

More than any of the other three discourses, GTI situates the sustainability (Great) transition in what is considered a historical moment for global civilization as evidenced by the two unique keywords *history* and *historical*. The historical nature of present times is determined by the establishment of a global society (*global, international, planetary*) largely resulting from the advancement of globalization through trade and economic integration as indicated by the unique keywords *globalization, trade* and *corporation*, and by the confluence of the two equally global crises of environmental (*ecological, environmental, sustainability*) and social character (*poverty, poor*), which are effects of a flawed economic model. The following extract is a paramount example of this stance:

> "The global economy sputters, and a sense of crisis is amplified by ecological uncertainty and social polarization. In poorer regions, people bitter about the continued failure of globalization to reduce poverty and feeling the bite of climate change demand a new global deal."

This analysis suggests that the challenges faced are global, so must be the solutions. Moreover, while globalization is seen as a force behind the challenges, it is also seen as the opportunity to create synergies for concerted action internationally. Thus, GTI is not an anti-globalization proposal but, rather on the contrary, attempts to situate a sustainability transition within existing macro-trends of economic, but also cultural, planetary integration.

The distinctive use of the term *reform* highlights the attempt of the Great Transition Initiative to identify ways to realize major change from within current socio–economic and political systems, as illustrated in the following indicative extract:

> "For the reform path to succeed, an unprecedented and unyielding governmental commitment to achieving sustainability goals must arise. That commitment must be expressed through effective and comprehensive economic, social and institutional initiatives."

Finally, the significant occurrence of the term *scenario* in GTI reflects the origin of the Great Transition Initiative as a scenario-building exercise. It also reveals that the purpose of GTI is by and large that of presenting, and critically discussing distinct transitions to a range of possible futures.

> "Global scenarios draw on both science our understanding of historical patterns, current conditions and physical and social processes and the imagination to articulate alternative pathways of development and the environment."

Great transition (new economics foundation)

Two aspects are especially distinctive of GT. First, while it aims to engage an international audience, GT is clearly rooted in the experience of the United Kingdom, as reflected in the frequent reference to this country (*UK*). Second, GT operates, not unlike all other discourses, a critique of dominant growth-oriented, neoliberal, all-monetizing economic model (*price, economics, economist*). However, what distinguishes GT is a focus on economic and social inequality (*income, inequality*), rather than, for example poverty as in GTI, and on climate change (*climate*), rather than peak oil (TT) or more general environmental concerns (GTI).

> "The biggest driver of the social ills we face isn't poverty per se, isn't necessarily even unemployment although that is a major factor. It is inequality."

> "What we have seen is not just a temporary malfunctioning of the neoliberal model but its failure on its own terms. Instead of endless, stable growth and high and rising incomes equitably shared, we have had inequity, volatility and crises."

> "From climate change to the financial crisis it is clear the current economic system is not fit for purpose. We need a great transition to a new economics that can deliver for people and the planet."

Transition

Four characteristics appear to distinguish TT discursively from the other proposals. First, TT puts more emphasis on the themes of *peak oil*, *energy*, and *food*, than the other proposals. While it must be recognized that TT has moved from an almost exclusive focus on peak oil and climate change to a much broader range of themes and forms of action, as reflected in both distinctive and shared discursive elements, peak oil, energy, and food nonetheless feature more in TT than in other discourses.

Second, the frequency of action verbs (*do*, *plan*, *happen*) points towards an action-oriented discourse. In contrast to GT and GTI, which are much more functional discourse types focused on elaborating a vision, TT is foregrounds aims to inform envisioning of alternative futures as well as and it attempts to motivate and inspire practical action. It is possible that the significantly higher frequency of these words in TT partly depends on the fact that most of the data for TT were in oral form. However, it has been pointed out by activists and scholars alike that transition in the

Transition Town Network involves, at its core, a necessary willingness to 'do stuff', 'make things happen' and 'move forward' (Hopkins 2013; Russi 2015), which confirms a very strong action-orientation in this proposal:

> "… if we want to create a new economy in this place we need to support the people who were coming through making that happen."

> "We respect resource limits and create resilience: the urgent need to reduce carbon dioxide emissions, greatly reduce our reliance on fossil fuels and make wise use of precious resources is at the forefront of everything we do."

Third, TT, more than any other discourse, involves emotional elements as evidenced by the unique keyword *feel*. In part, this relates to the function of TT to motivate and inspire people to be active agents of change in their community. More than that, though, reference to emotions in TT highlight that Transition (in the Transition Town Network) is also a process of space making for different subjectivities to developed and be expressed; a way to give space to different, more complete and holistic ways of being human, and to a whole culture of transition (Russi 2015).

> "To feel connected to other people, the natural world, and to something historic and exciting happening around them. Because they feel it is "the right thing to do"."

> "For some, it involves feeling the pain of the planet, and that can be overwhelming. This journey into realisation is best undertaken with fellow travellers to share the burden and provide support."

Fourth and finally, TT distinguishes itself from other discourses for its emphasis on the embeddedness of transition in place (*place, here*), through particular organizational forms, which are also rooted in place (*group, network, people, together, charity, charitable*). Thus, differently from other discourses that stress the global and future-orientation of transition, TT frames transition as a process of the 'here and now', which starts from the local level and involves organized collective action (e.g., in the form of a charity or NGO) in order to be able to interact with other local actors (e.g., local authorities, other organized groups).

> "Everything that we grow here is pretty much given away for free or donated to the food bank. People from the neighbourhood also know that they are welcome to come here and pick fruits and vegetables whenever they feel like it."

> "… we turn our vision and ideas into a tangible reality, initiating practical projects and starting to build a new, healthy economy in the place we live".

Commons transition

Three characteristics appear to distinguish CT from the three other discourses. First, CT proposes a critique of capitalist modes of production, and more than other discourses it frames sustainability transition as a move away from such economic model and its more recent articulation such as netarchical capitalism (*capitalism, capital, capitalist, economy, production, productive*). In fact, CT explicitly identifies a sustainable mode of economic and social organization through the creation of an open knowledge economy that is defined by a radical shift from capitalism:

> "The essence of capitalism is infinite growth, making money with money and increasing capital. An infinite growth system cannot infinitely perdure with limited resources in a limited physical environment. Today's global system combines a vision of pseudo-abundance, the mistaken vision that nature can provide endless inputs and is an infinite dump, with pseudo-scarcity, the artificial creation of scarcities in the fields of intellectual, cultural and scientific exchange, through exaggerated and ever increasing intellectual property rights, which hamper innovation and free cooperation."

A second distinctive element of CT is the focus on the commons (*commons-based, common, commons, commoner*) (see Footnote 3), and on the mode of action of cooperation (*coop, cooperation, cooperativism, cooperative, cooperative*) underpinned by civic sense and public ownership (*civic, social, distribute, open*):

> "In this model, peer production is matched to both a new market and state model, create a mature civic and peer-based economic, social and political model, where the value is redistributed to the value creators. These changes have been carried forward in the political sphere by an emerging commons movement, which espouses the value system of peer production and the commons, driven by the knowledge workers and their allies."

Third, while CT puts less emphasis on environmental sustainability and environmental issues, a core theme of CT is knowledge as a global common (*knowledge, service*). In this respect, a strong focus is on the actual creation of an open social and knowledge economy where the civil society plays not the role of consumer, but of civic peer- or co-producer:

> "The ideal vision of an open-commons based knowledge economy is one in which the 'peer producers' or commoners […] not only co-create the common pools from which all society can benefit, but also create their own livelihoods through ethical enterprise and thereby insure not only their own social reproduction but also

that the surplus value stays within the commons-cooperative sphere."

Discussion and conclusions

This study set out to comparatively analyze discourses of four transition proposals that have emerged in the last decade. Using a corpus-based discourse analysis, we have identified key areas of similarity and difference in those four sustainability transition proposals. This section discusses our findings and reflects on the possibilities for making discursive similarity and complementarity fertile towards a global socio-ecological transition to sustainability.

Similarities and differences of transition discourses

We found that the proposals are similar in mainly three ways, namely they (1) identify the economy as an object and an entry point for transition, (2) frame the economy as embedded in the socio–ecological system, and (3) ascribe agency to the civil society for transitions from the bottom-up. Thus, there is a shared general understanding of social–ecological configurations (points (1) and (2)) and of possible forces for sustainability transitions (point (3)). These three points constitute a common discursive space for the four civil society organizations, and possibly for others not considered in this study. These findings are in line with earlier studies (Longhurst et al. 2016; Luederitz et al. 2017), which have found similar critiques of the economic model in other civil society discourses, which address various core elements of capitalist and neoclassical economics including, utilitarianism, individualism, the separation of economy, society and nature, the belief in the possibility of endless economic growth, materialistic understanding of progress and prosperity, and 'free markets' (Table 2). More in general, notions such as those of biophysical limits, fairness in resource allocation, market flaws, and steady-state economics, which feature in the discourses, indicate that the sustainability transition proposals have intellectual roots in a long lineage of environmental and heterodox economic thought. This intellectual basis can offer opportunities for common goals and unity in pursuing transition to sustainability among the civil society organizations considered in this study and many others.

Nevertheless, it is crucial not to underplay equally insightful differences among the proposals. This study identified specific distinctive elements that constitute potential points of difference among the four discourses (Sect. 3.2). We suggest that those differences can be related to two factors. First, some differences ensue from different analysis of the present socio–ecological configurations. For instance, some of the most relevant differences identified are those that concern the role of the State, the degree of reform or radical innovation, the degree of imaginative character of the sustainability vision, the explicit opposition to capitalism and to its core tenets such as endless economic growth and free markets (Sect. 3.2). By and large, these findings reflect typical differences in environmental discourses as discussed for example by Dryzek (2013), Audet (2016), and Stevenson (2015).

Discourse and audience appeal

We also suggest that a second set of differences relates to the function of the sustainability transition proposals for given civil society organizations. Specifically, we found that discourses in proposals that are mostly devoted to analysis and critique tend to differ from discourses in action-oriented proposals: the latter involve stronger meaning making of (1) individuals and their motives (e.g., emotions), (2) organizational forms, (3) concrete actions for transition. GT and GTI emanate from two think thanks, and predominantly (although not exclusively) engage in analysis and critique. The discourse of these sustainability transition proposals might reflect the attempt to reach out to academia, decision- and policy-makers and to present a credible vision of the future. TT and CT, on the other hand, originate from networks of activists and, while they include a critical analysis of the status quo, their function is predominantly that of identity making for the mobilization of communities (Hopkins 2013; Russi 2015) and activists (CT). These discourses emerge with the attempt to inspire transition, and to show that a sustainability transition is not only possible, but in fact is already happening. Therefore, discourses in action-oriented transition proposals support principles of 'compulsion' to act which, as proposed by Brown et al. (2012), holds subjects (individuals, communities) together by pressing the future upon the present.

Earlier studies of sustainability transition discourses have generally focussed on the worldview or vision revealed by discourse (e.g., Audet 2016; Beling et al. 2017; Luederitz et al. 2017), but have overlooked the functional distinction between discourses centred on analysis and critique versus action-oriented ones discussed above. Here, we argue that to consider this additional dimension is fundamental in efforts of collaboration, cross-pollination and co-learning among civil society organizations. This is an additional lens through which complementary and distinctive discourses can be explored, and through which one can recognize that discourses and the goals that they attempt to accomplish differ depending on the audiences, at which they are directed. This is known in discourse analysis as the audience appeal (Jones 2012).

Outlook: politics, emotions, and place in sustainability transition discourses

To conclude, we propose reflections on three themes that emerge in varied forms in the discourses analyzed in this study, namely politics, emotions and place, and suggest how these can help advance theorizations of societal transitions beyond the traditional focus of specific socio-technical systems (Chatterton 2016).

Firstly, it was surprising to find that the four proposals considered in this study represent largely a- or post-political discourse. Potentially contentious issues such as the role of citizens in the political and economic systems, commoning of natural and social resources, fair allocation of resources, inequality, economic restructuring (including relocalization), and State reform are addressed more in terms of policies or practices, than of political confrontation. The language of political struggle against, e.g., hegemonic power structures, or vested interests, does not feature prominently in the four discourses. This is consistent with an ontology, uncovered in these discourses, of change as emergent (through generative practices, or essentially within the existing institutional setting) (Table 3), rather than driven by counter-power struggles.

This relative absence of the political sets these proposals aside from other, more politically oppositional proposals and discourses, such as Degrowth, and the environmental justice movement that, however, do not employ the notion of transition (Martinez-Alier 2012; D'Alisa et al. 2013; Asara et al. 2015; Kenis 2016). In the context of increasing calls for a politicization of sustainability in those movements, (D'Alisa et al. 2013; Asara et al. 2015), and of growing attention in the transition literature for issues of power and politics (e.g., Avelino et al. 2016; Ehnert et al. 2018), it remains unclear what the limitations of essentially a-political discourses may be. For instance, these discourses may open opportunities to build coalitions with other actors (Feola 2014), but preclude coalition with other (more politicized) movements.

Furthermore, the 'politicization' of discourse can expose some of the structural political barriers to transition, which may be otherwise obscured by a predominance of an economic discourse. It can also help contrast the economization of sustainability through the adoption of discursive approaches that go beyond the dominant economic paradigms which inform destructive development models (Escobar 2011). To transition to a different and sustainable world inevitably means to challenge the status quo in very substantive ways (Chatterton 2016). While this challenge will be resisted by vested interests, a political discourse can acknowledge those interests and support their destabilization (Bosman et al. 2014; Roberts 2017). Thus, we suggest that the outcomes of different political or a-political strategies, as well as potential gaps between political discourses and practices in grassroots-led sustainability transitions are important areas for future research.

Secondly, this study reveals differences between one discourse involving (TT) and those not involving (GTI, GT, CT) emotions (Sect. 3.2). Emotions have been typically absent from transition theories (Loorbach et al. 2017). Yet some scholars have argued that transitions, especially transitions to post-capitalist worlds, are personal as well as social processes. As such they involve emotions, subjectivity and the exploration of other ways to be human in connection with ecological systems (Brown et al. 2012; Chatterton and Pickerill 2010). Emotions also help to make sense of interconnected changes at different levels (from the individual to the societal) and to deal with the inherent uncertainty of transitioning to one owns future whose features are unknown as they are still in becoming (Chatterton and Pickerill 2010). Thus, discourses that involve emotions do not only respond to the need to motivate or inspire people to take action for sustainability transitions, but acknowledge the intimately personal dimension of transition. Discourses that involve emotions can support processes of meaning-making—to explore what transition means personally (Russi 2015). Furthermore, by enabling emotional engagement, these discourses can open up spaces for alternative epistemologies that are not based on the modern traits of rationalization and utilitarianism that have informed the mechanistic exploitation of nature (Escobar 2011; Princen 2012). Therefore, emotions are, similarly to politics, a different lens through which to approach and make sense of sustainability transitions. Discourses that enable emotional engagement with transition can inform diversified engagements with change and complement, enrich, and mitigate the predominance of economic, albeit heterodox, discourses of transition. Thus, while emotions have been typically absent from transition theories, this is a promising are for further theorizations of sustainability transitions.

Finally, this study has shown that different discourses involve partly different notions of place and scale (global/local). Sustainability transitions are geographical processes (Nicolosi and Feola 2016; Truffer et al. 2015). "Transition does not work without (local) places because those places offer the milieu—and the affective attachments—through which generic senses of responsibility, resilience, and relatedness may be most easily imagined and held together." (Brown et al. 2012, p 1620). Thus, it is important to ask whether different transition discourses can be emplaced (Brown et al. 2012), i.e., what transition means in particular places. This may be particularly relevant when societal transition across cultures and places, is pursued. Emplacement is fundamental for accessing resources (both symbolic and material), and build alliances and proximity (geographical–local- or else) (Nicolosi and Feola 2016). But, as shown in this study, the potential for discourse to be emplaced is not simply a function of it being developed in relation to a local 'here' or in attachment to a specific (local)

place. Instead, emplacement of discourse can be facilitated by a language of social dynamics and forms of social organization and connection (e.g., CT and TT), and emotions (TT). The intersection of forms of place attachment in sustainability transition is, therefore, a third area that appears to be promising for future transition studies.

Thus, politics, emotions, and place are three aspects on which the discourses analyzed in these studies differed, but which, in the light of current efforts to explore fertile discourses intersections, appear to be promising, if problematic. These three aspects have only marginally and/or recently been addressed in sustainability transition research and we suggest that more effort should be made in this direction. Through the lenses of politics, emotions and place future analysis and debates may further reveal political barriers, subjectivities and epistemologies of sustainability transitions, as well as modes of emotional and geographical engagement of the civil society in sustainability transitions. These are important aspects not only for the practice, but for the theorization of societal sustainability transitions led by the civil society.

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