



Vicarious scale and instrumental imaginaries in community sustainable transitions

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ARTICLE INFO

Keywords:

Community
Scale
Community transitions
Upscaling
Transition
Multi-scalar

ABSTRACT

Community initiatives are often charged with scaling-up: growing, deepening their impacts, and seeding off new projects. The desire to scale-up comes from both within the community initiatives themselves, and is also encouraged by all levels of policy, from local government, to national and international frameworks such as the IPCC. This paper adds to critiques of this agenda, by leaning on human geography writings on scale, and introducing the concept of ‘vicarious scale’. This concept is drawn from empirical work which highlights the double move of scaling-up. This double move, first, restricts and contains community within a local, small, or narrow limit. Then, concurrently, expects this restricted community to have displaced effects: at a higher scale, or a distant point in time. It argues that the scaling-up expectations are both placed onto community initiatives and emerge from within them, and that these expectations are both counterproductive to realizing the full potential of community, and accompany an insertion of instrumental logic onto and into these community initiatives. Appreciating vicarious scale also has important practical implications for communities—not least being wary of the counterproductive and corrosive effects a will-to-grow can have.

1. Introduction

This article argues that there is an elision of ‘community’ and ‘transition’ in contemporary academic literature, policy, and practice: one that requires further investigation given tensions and paradoxes involved in placing these two terms together. In exploring this elision, we outline an alternative framework understanding what community does when used to pursue transition. To do so we draw on critical geographies of scale to provide an original contribution to sustainability scholarship, by rethinking how ‘community’ and ‘transition’ are articulated and work together. Specifically we develop the concept of ‘vicarious scale’ to highlight tensions and paradoxes in existing articulations of these terms.

Community is now crucial arena for environmental action and policy, particularly in relation to sustainability transitions (Agyeman et al., 2016; IPCC, 2022; Schlosberg and Craven, 2019; Welsh Government, 2021). There are increasing calls for more community initiatives; intensifying and deepening initiatives that already exist and heralded as

successes; and, importantly, to *upscale community*—to grow, expand, and spread community’s benefits more widely. National Net Zero policies, for example, emphasise the role of communities in meeting goals e.g. see Welsh Government 2021: ‘All Wales Plan: Working together to reach net zero’. Two indicative examples outline how prevalent these normative assumptions are: one a global actor of some importance, and the other perhaps the most iconic expression of eco-community activity in the last decade.

The 2018 Intergovernmental Panel on Climate Change (IPCC) special report outlined how to limit global temperature rise to 1.5C. It argued that limiting emissions to the level “...would require the *upscaling* and acceleration of far-reaching, multi-level and cross-sectoral climate mitigation ... limiting warming to 1.5 °C will require a *greater scale* and pace of change to transform energy, land, urban and industrial systems globally.” (Emphasis added, Chapter 4). The IPCC outline how this unprecedented effort will be achieved, listing many different community initiatives already performing in a minor way the changes required. These include community-based adaption, Transition Towns,

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<https://doi.org/10.1016/j.gloenvcha.2022.102543>

Received 30 April 2021; Received in revised form 2 May 2022; Accepted 18 May 2022

Available online 14 June 2022

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community partnerships and community management of natural resources such as drylands or forests. The IPCC report calls for upscaling these ‘community solutions’. The recent Glasgow COP26 agreement includes \$67 million for the Community Resilience Partnership Program (CRPP). The explicit aim of which is to “scale-up local adaptation solutions” (NAB Vanutu, 2021). The most recent IPCC report, WGIII on mitigation of climate change states:

“Collective action by civil society groups and social movements can work to enable or constrain climate mitigation. Civil society groups can advocate policy change, provide policy research and open up opportunities for new political reforms (high evidence, high agreement) as recognized in previous IPCC reports... Civil society movements are a primary driver of social and institutional change (high evidence, high agreement).” (IPCC AR6 WGIII, 5-82/82).

Assumptions about the grand consequences of community and civil society actions—with the highest evidence base—and the need to increase size and reach of community endeavours do not just exist in international policy realms. Community initiatives themselves often embody a ‘will to upscale’, to either grow themselves, or to seed off similarly sized initiatives. The Transition movement, praised by the IPCC, has pursued such an approach to rolling out community action. This model assumes patterns in personal and interpersonal interactions repeat in community dynamics across all scales, from the individual to the international. Upscaling Transition requires fostering the same patterns of action, whether in a handful of committed activists, a movement of many thousands nationally, or even globally. “[T]he more we see these parallels and the more fractal this model of transition appears at these different levels of scale, then the stronger and more robust we’ll all be” (Brangwyn, Transition key thinker¹).

In this article we assess two widely held assumptions from such statements. First, that community initiatives can help address global climate emergency. Second, that such initiatives ought to—and indeed can—be ‘upscaled’, growing, accelerating, and intensifying to meet climate challenges. Critically addressing these dual expectations, this article applies scalar theory from human geography into practical application for those involved in community transitions both in terms of policy and practice. Importantly, this paper considers how a will to upscale impact community initiatives. In doing so, it examines the co-implications of community and transition through the lens of social theories of scale. To do this, the article first examines how Human Geographical understanding of both transition and transformation approaches the concept of community. The following section then sets out how ‘upscaling’ is understood in this field, including how the ‘will to grow’ results in what we term ‘vicarious scale’. The article then moves to a more critical examination of what this means for understanding of community and for community initiatives themselves, drawing from our own empirical research. We then examine what a relational approach to scale offers community initiatives. This includes exploring what the practical and political consequences are of reimagining upscaling. The article concludes with a call for a plural approach to scale, which we argue can help understandings of both transition and community. Setting scale in its context then offers valuable lessons for scholars and practitioners of community, beyond critical human geography. This usefulness revolves around better understanding of tensions between community ‘for itself’ and instrumental logics that can enter or be part of community initiatives.

1.1. Communities and transition

Transitions research is inconsistent in its application of the term ‘community’, with an array of definitions. Often community is defined

¹ Brangwyn quotes from here: <https://transitionnetwork.org/news-and-blog/ben-brangwyn-on-the-scaling-up-of-transition-internationally/> Accessed 23rd January 2021.

as a particular, geographically specific initiative, while transition refers to a geographically widespread effect of these initiatives. Arguably then both terms pull in opposite directions. Community as a means for transition can be as varied as identifying community as a grassroots innovation—“new ideas and practices” that “struggle to scale up and spread beyond small niches”², and characterising communities as a means for delivering top down agendas, particularly within governmental discourses (Taylor Aiken, 2016). Community, on the other hand, is understood as contributing to transition processes e.g. as protected space for learning and empowering new technologies, including ‘Low-Carbon Labs’ (Heiskanen et al., 2015); as an alternative milieu (Longhurst, 2013); a praiseworthy social innovation (Moulaert et al., 2010); collective solutions to promoting sustainable consumption (Middlemiss, 2018); a locus of environmental governance beyond the state (Bulkeley, 2005); an experimental space (Penha-Lopes and Henfrey, 2019) or a more utopian turning away from unsustainable systems and cultures (Jackson and Senker, 2011). However, in all these definitions a similar scalar imaginary can be seen.

Conceptual slipperiness and a wide variety of meanings can be found throughout examples of community in transition literature, policy, and practice. Not to mention the marrying of bottom-up desires for change or pursuing belonging with a top-down allocation that contains community. Broadly speaking, sustainability transitions research has often assumed that communities act from ‘bottom-up’. That is, communities are produced by—and feed into—remote ‘top-down’ processes (Grin et al., 2010), assuming reified scales. Seeing community as either an agent of transition, or somehow involved in wider change accompanies scalar ambiguities and tensions (Boyer, 2014; Seyfang, 2010; Creamer et al., 2019). This body of work implies an ambiguity, is uncertain on which exact scale community is acting, and tensions are produced by splitting the work of community from its effects. Community action cannot be neatly parsed from community benefits. When community is assumed to have the productive potential to act on systemic shifts and transitions such as change the energy system/sector, the scalar separation between local and global, between the now and the not yet, is highlighted. Here, the assumption of agency within any community initiative is understood as vicarious. That is, for community—and any practice incubated within communities—to ‘scale up’ it must engage and act upon another ‘higher’ and more impactful scale, which has both greater geographical reach and larger numbers enrolled.

Where scaling-up community-initiatives that appear to be feasible, or solid ideas at a local, niche level are analysed as a form of transition, it is common to note challenges (Loorbach and Lijnis Huffenreuter, 2013; Vergragt, 2013). One reading of this might be that it implies that if we can only get the scaling right, all will be well. Most prominently, this theory of change is embedded in the Multi-Level Perspective (Geels, 2002), which has made influential and valuable contributions to understanding how transformative change happens. In its most basic interpretation, the MLP demonstrates how innovations emerge in niches, upscale, and then finally move to regime level, continuously contextualised by landscape level factor and forces. Each of these levels are also inferred to be scalar, although not necessarily fixed as specific scales. Equating ‘level’ with ‘scale’ points to a more fundamental tension in scaling-up community transitions, theoretically as well as practically.

A notable literature on socio-technical transitions and MLP specifically has emerged in recent years and there is danger in generalising across a large body of work. Indeed, past work has focused on ‘spatialising’ transitions research. Raven et al (2012) highlight the multiple geographies of transitions and the varying ways activities and movements are organised geographically. Hansen and Coenen (2015); see also Truffer and Coenen (2012) emphasise the importance of attending to “geographical connections and interactions” (op cit., p100) inherent

² Quotes in this sentence from the definition of Grassroots Innovation on <https://grassrootsinnovations.org/about/> Accessed 18th January 2021.

in transitions, highlighting the value of a place-based perspective to transition research. In doing so they bring attention to contestation and struggle between actors (people, organisation, infrastructure) operating across different spaces and places.

Further, MLP proponent Frank Geels (2002) has responded the spatialising of transition theory, noting that ‘critics may have a point’, going on to explain how:

‘Levels ... refer to different degrees of stability, which are not necessarily hierarchical. This is a deviation from earlier MLP-work, which used the notion of ‘nested hierarchy’ ... While the socio-technical landscape is an external context, the relation with regimes (and niches) is not necessarily hierarchical (just as one would not characterize soil conditions, mountain ranges and rainfall patterns as hierarchical structures for biological evolution). So, perhaps we should consider dropping the ‘hierarchy’ notion in the MLP. (Geels, 2011 p35; authors’ emphasis).

Geels moves on to weigh up the benefits and challenges of MLP as a high-level explanatory theory compared to flat ontologies, noting the trade-offs between attempting to generalise and explain via MLP, and an emphasis on ‘heterogeneity, contingency, fluidity, emergency, unpredictability, and untidiness’ in flat ontologies. Flat ontology is a term associated with Manuel DeLanda (1997) opposed to hierarchical thinking, breaking down established classifications.

Acknowledging the contributions and many applications of MLP, it is in a constructive spirit that we further those debates, examining in detail some of the tensions inherent in placing community within transition theories. As Bouzarovski and Haarstad note, notions of scale remain “typically based on linear and hierarchical ontologies” (2018, p. 1). It is therefore useful to draw from critical social science literature – human geography in particular, given decades of debate within the sub-discipline about scale – to show how alternative understandings of scale can provide a *non*-hierarchical approach that has potential to shift the foundations for how community is conceptualised in research and practice.

1.2. Communities, transition, and upscaling

A related challenge concerns the idea of ‘upscaling’, also implicitly rooted in a hierarchical understanding of scale. For example, in charting the diffusion of electric vehicles from specific niche user communities, Meelen et al. argue that upscaling innovations “has been the main occupation of the field of sustainability transitions studies” (Geels et al., 2017; Meelen et al., 2019). This highlights a paradoxical imperative in discussions of community transitions. That is, community, as understood in prevailing academic and policy discourse, must concurrently remain small-scale and local while being outwards-looking, seeking wider impact, dissemination, and/or growth. This means in definitional terms and orientation there—at least on the surface—cannot be both community and systemic transition (Dinnie and Fischer, 2020). Community here can therefore either stay community, or it can achieve its promise of transition, abandoning containment. There is no reason *per se* why community needs to be seen so restrictively. Community could be symbolic or imagined, transcending any local constriction, but the starting point for discussing the community of community transitions is locally-rooted, small scale-as-level containment. Hence we ask in this paper whether ‘community transitions’ is definitionally oxymoronic, or at least imbued with definitional tensions.

The idea of community transitions performs dual expectations then, characteristic of what is described here as ‘vicarious scale’. These expectations first reduce community to a clearly delimited role—often small-scale and local. Second, it displaces the agency of communities, wherein they have distant effects—temporally or spatially/geographically—in aggregate. This imaginary both delimits *and* displaces community. It defers effects to another time and place, while containing

and constraining community’s agency.

1.3. Scaling up and the will to grow

‘A will to upscale’ community-based initiatives, and general positivity around its necessity and possibilities, is not necessarily imposed on communities. Indeed, the desire to ‘make a difference’ for climate or other global environmental challenges can be an important motivating factor for community action. This motivation is apparent in key concepts such as ‘just transition’ or ‘food justice’, which evoke systemic socio-environmental transformations beyond specific places. To understand community action as somehow extricated from the world it inhabits would also be a problematic and extreme application of a hierarchical or ‘nesting’ scalar discourse. But scaling-up community is replete with political, financial and logistical barriers. These range from generalised difficulties such as vested interests and problems of incumbency, to domain-specific limitations such as grid infrastructure in the case of community energy. Such problems can be seen in the examples provided in the introduction to this article: from the IPCC and COP26 to the Transition movement. More centrally, scaling-up can shift and even erode what community initiatives do and want to do. The IPCC report cautiously notes that “expectations of innovations growing in scale ... [can] undermine local resilience building” (IPCC, 2008 Chapter 5: p.474), without saying how or why. The Transition Network movement acknowledges the difficulty in “‘restructuring’ in order to be ready to scale up” and have wrestled between “staying true to the values that inspired you to start” and maintaining momentum, pursuing scaling up internationally³. The Euclidean assumptions of Brangwyn’s fractal model - that social and spatial dynamics play out the same across all levels or sizes - are also fraught with difficulty. As we see in Tsing’s thought below, many community characteristics, especially interpersonal and phenomenological dynamics, simply do not scale in this way.

Some specific studies have attempted to understand the process of upscaling. For example, Biørn-Hansen and Håkansson (2018) describe the scaling-up of community organisations as proceeding through successive stages of ‘sustaining’, ‘growing’ and ‘spreading’. This linear sequence suggests how they can fulfil their goals to have “a larger impact [and] enable more people to take part” (p.2). However, work from transitions scholars (Avelino and Wittmayer, 2016; Grin et al., 2010) and grassroots innovations theorists (Hargreaves et al., 2013; Seyfang and Longhurst, 2016; Seyfang and Smith, 2007) highlights the context dependence and place specificity of many grassroots initiatives. Theorising mobility transitions, Temenos et al (2017) take a critical approach to upscaling, highlighting the centrality of place-specific factors to innovation success, in particular geographic and local contexts. When community initiatives are unmoored from these, they can come to mean and do things that contradict their founding ethos. Numerous examples exist of grassroots innovations altering as they upscale. For example, AirB&B has become emblematic of how scaling-up can fundamentally transform the ethos and practices of an initiative (Guttentag, 2015; Wachsmuth and Weisler, 2018), with the niche innovation of renting out and sharing floor space becoming a means of private accumulation of wealth, as well as causing increased GHG emissions. In addition, Hobson et al. (2016a), Hobson et al. (2016b) outline how some UK based community energy groups *expressly* avoid growing larger and/or taking on bigger initiatives. This is due to the time, stress, and resources involved, as well as clear motivation to remain connected to, and working in, their local contexts and networks.

³ Quotes from, Brangwyn, and can be found here: <https://transitionnetwork.org/news-and-blog/ben-brangwyn-on-the-scaling-up-of-transition-internationally/> Accessed 23rd June 2020.

1.4. Upscaling and a vicarious scale imaginary

A key argument this paper aims to make is that the prevalence of upscaling in community transitions produces and reflects a form of vicarious scale. That is, when a community is expected to have effects beyond itself, it becomes vicarious, especially when such effects become primary to definitions of success (Taylor Aiken, 2017; Eadson and Foden, 2019). e.g., when community wind farms become key to national energy transformation. Concurrently, communities are also understood as contained locally to a particular domain of ‘grassroots’ action. Bringing these dual expectations together, *community is vicarious when reduced to a specific location or size, but then concurrently understood to affect a much broader change or transition*. That is, community is not understood in and for itself, but used ‘in order to’. Specifically, community is valued vicariously for the wider effects it can have on others and for the actions it can carry out through and on behalf of others: specifically at a ‘higher’ scale. The central problem with such vicariousness is that it introduces a form of instrumental reasoning onto and into community work. It also potentially bounds the limits of what can be achieved by instilling particular ‘uses’ for community (Holstead, 2018), prescribing what community is and is not. The consequences of instrumental reasoning within communities are that the community shifts from a relational and present purposiveness towards a more rational and demonstrable way to conceive of and justify a community’s tasks. (See Diagram 1).

To place this argument within human geographers’ work on the theory of scale, vicarious scale is similar to Smith’s concept of ‘jumping scales’. Scale jumping, “takes place when political claims and power are established at one geographical scale and extended to another” (Moore, 2008, p. 209; Smith, 1991). In this light, vicarious scale occurs when political claims and power that are established at one scale, and then *displaced* to another scale. When applied to community initiatives, it is not that any given community is *extended*, and that community grows to include wider regime actors, policy frameworks, or systemic infrastructure. Rather, it is that the praiseworthy effects of a given community initiative are not to be found in what that community can do themselves, but in the *deferred* or *displaced* effects that initiative can have elsewhere. These effects could be to inspire others or to provoke more institutionalised actors to action: not inherently bad but

potentially meaning the community’s value and worth is now located and legitimised beyond itself.

Vicarity thus first involves the production of a separate scale, imagined as distinct and somehow ‘other’ to the immediate here and now and instead a higher, supposedly more impactful scale. Second, vicarious scale re-folds that scale back into one’s present world in a way that gives present actions meaning, or purpose. That is, it favours a future-orientation, or instrumental or consequentialist valuing of actions in the present. Think of the difference between valuing a community initiative for its capacity to inspire others and growing itself compared to a more intrinsic motivation such as mutual support and solidarity. Vicarious scale is then in some ways an act of sense-making (see Section 4). But it is problematic for the reasons outlined above, in that vicarious scale renders community action as largely valuable for its contribution to a ‘greater cause’ rather than for how it affects the community itself. This move values that which is abstractable or measurable, in terms of ‘wider’ goals; and – in doing so – potentially hinders the efficacy of community-led action. In response, we argue for an alternative scalar imaginary and practice within community initiatives. This would first, and fundamentally, avoid a normative will to upscale. It would value the right of community initiatives to remain who they are, without future hopes and aspirations being projected onto them. To be clear this ‘will to grow’ can emerge from both within and be laid upon community initiatives. Second, an alternative imaginary would not be seen by this desire to grow the community, but rather remain who they are. The desire to act in the here and now and in a non-instrumentalised way. This argument is developed over the following sections.

2. The scalar logics of scaling up

Academic, policy and practice understandings of community transitions, then often hold both that community initiatives and experiments are locally rooted, and that they have the potential to ‘upscale’, affecting and encompassing more influential actors and factors. While there are numerous attempts to define and ascribe meaning to upscaling (Koehrsen, 2018, p. 7), the logics underpinning upscaling are less often discussed. At root is arguably an instrumental reasoning that can have negative impacts on community initiatives in both theory and practice. By outlining some of the analytical problems with scale, we hope to

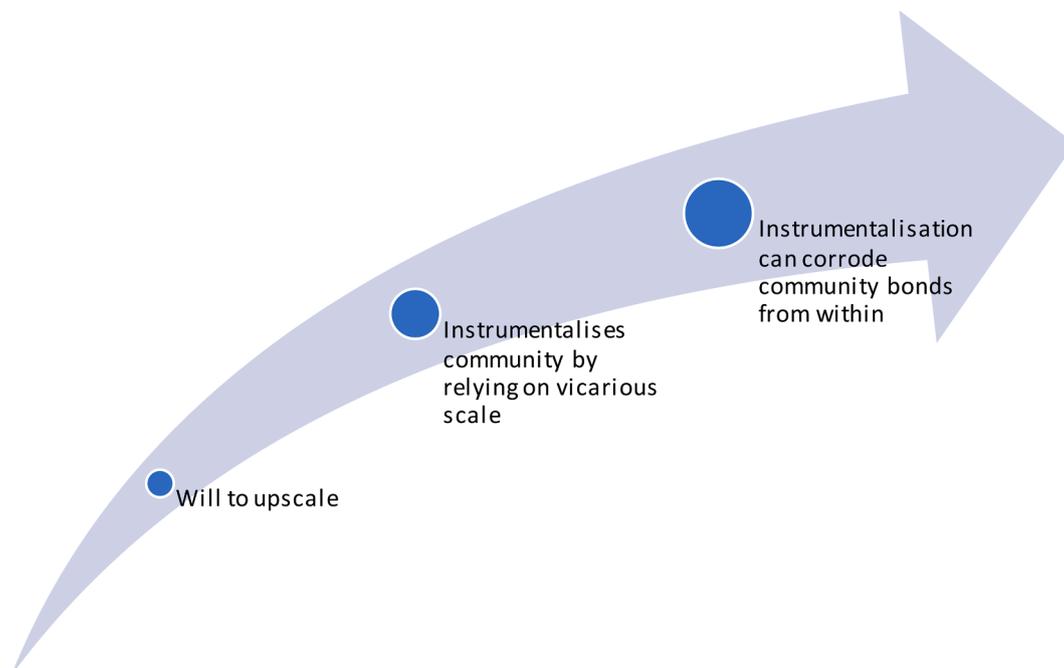


Diagram 1. Impact of scaling up on community initiatives.

draw attention to how (re)thinking scale can have practical effects. In doing so, this section draws on key human geography theories of scale, applying these to community transitions to help further the explication of scale as vicarious.

2.1. Scale beyond level and size

Human geographers have a long history of challenging scale as a concern of level or size. Marston (2000) for one influentially argued that scale is socially constructed. That is, that that scale is not only about size (census tract, province, continent) and/or level (local, regional, national, global) but is also relational (after Howitt, 1998). Seeing scale as relational involves conceptualising scale and scales as interactively produced through individual and collective activities (Marston, 2000, p. 221). Upscaling therefore might not necessarily manifest in a desire to enlarge (upscale scale-as-size), or encompass (upscale scale-as-level), but can alternatively be seen as a way to more deeply engage elsewhere: for example as Brenner has argued that scalar interventions are also as much about other concepts as scale itself (Brenner, 2001).

Moore (2008, p. 217) later argued that attention should be paid to “what people do with scale categories, how they utilize them to construct space and social relations for specific political aims.” This involved two important dimensions. First, separating scale as an everyday, ‘common sense’ category from theoretical reflection on how and where scalar categories are produced. Second, paying attention to the accompanying political, social and spatial consequences of using particular scale categories. Scale in practice, in an everyday sense, is seen as an “intuitive fiction” (Smith, 2003, p. 55) informing “folk understandings and spatial organization of the world.” (Moore, 2008, p. 206). By contrast, *analytical scale* is one way to understand and categorise the scales that we find in the world. *Scale in practice* refers how scale is used and tends towards a ‘folk sociology’ or ‘common sense’ (Geertz, 1975; Rosenfeld, 2011) understanding of scale. Scales in practices “tend to be reified in social thought as essential and natural entities, and these reified understandings are often uncritically adopted by social scientists as categories of analysis” Moore (2008, p. 207).

In community transitions—from the IPCC’s perspective on them to within the movements themselves—the intuitive fiction or common-sense approach is often one of a background assumption or desire to upscale. Upscaling here is widening the dissemination of novel community-based examples or experiments, or the acceptance at a wider societal level or niche interests.

Tsing’s term *scalability* is of relevance, being the ability of a project to change scales smoothly without any change in the assumed contextual conditions and “the possibility of infinite expansion without ever changing” these frames (Tsing, 2015, p. 39). Tsing links scalability to wider assumptions, where the ability to scale projects is entangled with an imagined future of growth, of ‘Progress’, and ‘Modernity’. Scale in its common sense, intuitive fiction is also tied to other concepts of modernity especially hierarchy (Brenner, 2001). Scalability for Tsing—here a synonym for upscaling—leans towards a concept of scale as layered, nested and like Matryoshka dolls.

This upscaling tends towards displaced effects. Tsing states that scalable projects comprise both scalable and non-scalable elements that interact (2015, p. 39). However, it is the scalable elements that receive the focus of attention and the non-scalable become an impediment” (Tsing, 2015). Seeing scale as only size or level, and then seeking to shift and displace the effects to another level or layer, introduces forms of instrumentality into groups and movements. From this perspective, the community that can upscale, is, by definition, not community: or, at least, not community as it is often known and felt. Thus, what is upscaled is that which can be abstracted, measured, and rationally understood, rather than what is felt or embodied. The latter is vital, as what forms and gels community often includes shared and individual histories, relations, and capabilities: characteristics that Tsing labels non-scalable. Using Tsing’s perspective, upscaling prioritises the scalable over the

non-scalable. Upscaling ‘crowds out’, or shifts community’s internal logics towards displacement, labelled here as vicarious scale’.

For example, in Table 1, certain forms of community were not imagined to be able to be upscaled. In the community garden the focus was on ‘relationality’, and generating solidarity – but this was an end in itself and not to be exported or applied elsewhere. By contrast the Farmer’s market, Community energy and Transform the street projects all sought to move, expand, and seed off other initiatives. Yet, these were copying the more abstractable aspects to their community initiative: their spreadsheet model, meeting structures, or advice on how to acquire funding. Not their collective experience of acting together, or sociability and belonging. It is these latter aspects that often draw people to participate in community initiatives, and these forms of relationality precede the insertion of an ‘in order to’ instrumental reasoning. Both instrumental community and what Tsing calls ‘non-scalable’ community exist, at times concurrently Both go under the name community. Both can be related to each other, one even influence and even produce the other. But they are distinct – they do different things and the relationship between them can often be counterproductive.

The encouragement of scaling-up community without appreciating the non-scalable aspects that are often the foundation stone can lead to insertion or prioritisation of instrumentality within community. For example, one regular refrain of community energy research is the varying interpretations of community initiatives’ relationship to place (Barr and Devine-Wright, 2012; Devine-Wright and Wiersma, 2013; van Veelen and Haggett, 2017; Devine-Wright, 2019a; Devine-Wright, 2019b). While place attachment, or a relationship with place more generally, can be seen as a commonality to these initiatives, the specific place attachment or the relationship is tied to that place and is, in Tsing’s terms non-scalable. Such central components of place cannot be broadened out to encompass a wider region. That is, the camaraderie or shared visions and/or experiences of a handful of people are incontrovertibly altered when more and more people are involved. Some characteristics, like place attachment, or collective subjectivity within a specific community, may indeed form a pattern, or be emulated from one initiative to another. However, they themselves are tied to where they emerge, and amongst whom they emerge within. Recognising that any community innovation or initiative will evolve as it diffuses is not an upscaling in the sense outlined here.

2.2. Upscaling and instrumentalism

For the Marxist geographer David Harvey community-based initiatives cannot ‘upscale’, at least not in anything like their local and small-scale form. Harvey states: “the collective organization of small-scale solidarity economies along common-property lines cannot resort to ‘nested’ and therefore hierarchical organizational forms” (Harvey, 2013, p. 69). This argument varies from Tsing’s notion of scalability – i.e. the capacity for a project to retain the same ‘framing assumptions’ as it smoothly shifts scales – as for Harvey, different scales are fundamentally distinct.

In reviewing Ostrom’s work on commons, Harvey notes the size of commons could function up to, but not beyond, 15,000 people. Anything larger “required a “nested” structure of decision-making, because direct negotiation between all individuals was impossible.” (Harvey, 2013, p. 69) 15,000 is much larger than the socio-biologist Robin Dunbar’s number of about 150 people, after which social cohesion starts to falter. Yet both rest on a framing assumption that direct negotiation between individuals has a quantitative limit. In Tsing’s terms face-to-face negotiation is ‘un-scalable’. As face-to-face dialogue is a foundational point for Ostrom’s commons, Harvey argues this results in the idea of commons itself as unscalable. Introducing what Ostrom calls ‘nested’ structures—Harvey terms it ‘hierarchical’—is seen as necessary to address issues of commons at any level (national, global) beyond the small and local. Harvey is particularly suspicious of community-based solutions at anything other than a parochial level, primarily due to his

Table 1

Outline of the various upscaling expectations across three distinct types of community transition initiative.

Type of community initiative	Key Objective	Definition of community	Form of upscaling pursued	Examples of practices expected to scale-up
1. Transition initiative	Community Gardening: Get hands dirty, focus on practical project, and participate in a common task.	Those who participate in the gardening.	Participants were mostly anti-upscaling, wary of the project becoming “too big”. If upscaling at all, ‘replicating’ would be the word: seeding off other, new initiatives. Not vicarious.	Fostering relationships between volunteers, generating solidarity. Scaling-up was not the focus here.
	Community owned renewable energy scheme: Joint initiative of two local environmental activist communities (one a Transition initiative).	Not defined, but seen to directly benefit local residents	Spreading – “demonstrating how current radical rationales can become mainstreamed in future”. Also, growing .	(Spreading) Inspire others to follow their example. (Growing) Greater returns in terms of funds to be spent on the local community & quantity of power generated renewably. Upscaling scale-as-level. Food production and consumption. Consumers avoiding supermarkets. Relocalised supply chains. Upscaling scale-as-size
2. State use of community	Farmer’s market: Providing the opportunity to buy locally sourced vegetables and other farm products. Cut out supermarkets from everyday food supply chains.	Not certain, but community here referred to any food provider that wasn’t a large company (again assumed rather than defined). The community were also the local residents where the market was located. One street. 250–300 residents.	Growing – increasing in size. Quantitative growth of the market by attracting more customers, and stallholders.	Upscaling scale-as-size
	‘Transform the Street’ project: Transition the ‘whole street’, which includes the built environment, resident’s behaviours and beliefs. Motivational interviewing, ‘nudging’, and installed hard measures.		Embedding – the mainstreaming of the environmental innovations.	Entrenching environmentally friendly behaviours. Lower carbon footprint (per capita).
3. Community Energy	A non-profit organisation designed to support and foster ‘resilient and relocalised post-carbon communities’. Also a national Transition hub.	A culture of solidarity and collaboration; a level between the personal and the organisational/systemic	Partnering “pooling of resources”, competencies	None specifically mentioned: “citizens who make their own currency, create their vegetable patch, relocate the economy, build differently and found energy cooperatives.”

conceptions of scale: “What looks like a good way to resolve problems at one scale does not hold at another scale. Even worse, patently good solutions at one scale (the “local” say) do not necessarily aggregate up (or cascade down) to make for good solutions at another scale (the global, for example)” (Harvey, 2013, pp. 69–70).

For Harvey, instrumentalization is not a negative aspect to upscaling, but rather a reason why community-based movements must abandon organisational techniques that only work on a small-scale—such as collective decision-making—and embrace hierarchical leadership. In response, Springer (2016) argues that Harvey’s perspective “is anchored in abstraction, hierarchy” (Springer, 2016, p. 158), drawing on relational scale arguments such as those of Marston (see Section 4.1). What is relevant here is the implicit link between hierarchy as an organisational form, and a hierarchical theoretical outlook on scale. Both Springer and Harvey implicitly agree that upscaling based on the Matryshka Doll model—hierarchical, nested, layered—requires an insertion of instrumental logic within a community, despite their clear disagreements on how to value instrumentality and hierarchy. Views of scale as size (up to 15,000 people for Harvey, c.150 for Dunbar) or level (national, international, or global taking precedence over the local) correlate with the hierarchical ontology of the mainstream, or intuitive fiction, version of scale. Identifying scale as size is closely tied up with a hierarchical and instrumental view of both togetherness and political organizing.

Community and grassroots initiatives by contrast are often inherently relational, constituted through ongoing interactions and relationships between those comprising these initiatives. Some of the aspects of these projects can be what Tsing calls scalable—for example the accounting spreadsheets in a co-housing initiative; or the economic model that makes community-owned renewable energy projects viable. These can be replicated from one place to another, transferring without changes in the framing assumptions to the project. However, there are

invariably intangible and phenomenological qualities to these projects which is resolutely non-scalable e.g. such as face-to-face encounters. Such factors, which comprise groups and movements, remain, in Tsing’s words, non-scalable.

3. Scaling up community transitions in practice

To give some tangible examples of vicarity, Table 1 shows three different kinds of community-based initiatives, alongside their definition of community. These are indicative, and not presented here as exhaustive. Each was chosen from the previous research of the authors to illustrate the range of definitions of community in use (Creamer et al., 2019; Eadson and van Veelen, 2021; Kumar and Taylor Aiken, 2021). Table 1 outlines the various ways these initiatives imagine and orientate themselves towards upscaling. Each study was based on qualitative research methods, and comprised a standalone study. In discussions between each of the authors we realized that each also provided a piece of the puzzle explaining we are calling vicarious scale here. Specifically, each study relied of a form of participative observation and time spent with each group during their regular activities: for example, shadowing the roll out of door knocking and communicating with the street residents (example 2), or sitting in of the meetings of the community energy scheme. Each study also had a mainstay of semi-structured interviews (between 7 and 46 per example) from which primary evidence is drawn. These were then coded, and generative themes identified. While this paper does not report any of this primary data (e.g. quotes from interviews), it is based on gathering and evaluating the larger themes and codes which emerged from these interviews – particularly are the scaling expectations emerging as both emic and etic data.

The three examples are: (1) the Transition movement, (2) State initiatives using community initiatives to achieve their own objectives—for instance through tasking community with mitigating Carbon reduction;

and (3) community energy. These are not mutually exclusive, e.g. a community energy scheme received external funding that ties it to fulfilling exogenous expectations. The variety of forms and implications of community in the table demonstrate the range and polysemic ways community is defined, alongside various forms upscaling takes in community initiatives, with specific examples of practices that are expected to scale-up. It also highlights the tensions and trade-offs between the instrumental logics, and a more intrinsic community-for-itself. This highlighting is important as only some of these are possibly scalable, in Tsing's sense, or desirable in Harvey's or Springer's.

The Transition Initiative (example 1) is a grassroots network and collection of local projects grappling with the 'will to grow'. Example 2 draws on work about how governmental institutions deploy community to pursue environmental, and specifically Greenhouse gas reduction, targets. Example 3 of Community Energy projects embodies tensions between financialisation, commercialization, and a desire to see larger impacts on the one hand, with maintaining the original community approach, on the other hand.

The column in Table 1 on the different forms of upscaling pursued is taken primarily from the analytical approach developed by Loorbach et al. (2020). This outlines five ways that transformative innovations develop, which are growing, replicating, partnering, instrumentalising, and embedding (Fuller, 2017; Hoicka and MacArthur, 2018; MacArthur, 2017). We have kept this framing, but from the analysis above and empirical description below, we hold instrumentalising separate as a more pervasive pattern in all forms of scaling-up. To the four categories from Loorbach et al., we add "spreading", outlined by Smith and Seyfang (2007, p. 589): initiatives that "catch on, become adopted and spread". These various forms of upscaling are set in empirical context, in the light of the idea of vicarious scale.

The instrumentality that pervades these five forms of upscaling are better explained through examples. Community energy schemes can replicate examples or grow to produce more power in future, which is useful, but only in a displaced, distant manner, i.e. an instrumental, in-order-to valuing of the replication or growing. Again this is not to deny that there are benefits to the cascading effects community energy can have on other systems (see Pinker, 2018 for an in-depth exploration). But key here is how instrumentality can also be seen in measuring the success of community as a context for encouraging pro-climate behaviour through reducing Greenhouse gas emissions: moves which may not have immediate benefits for the community or the individuals involved, but assists governments in meeting their emission reductions target.

3.1. Spreading the transition movement: grappling with the will to grow

As already discussed above, the Transition movement offers an example of how community action can be imprinted with a will to up-scale from within, with successful steps for Transition Initiatives (previously called Transition Towns: see Hopkins, 2013) outlined in handbooks and guidelines (Taylor Aiken, 2017).

Whether community groups can, do or should have effects that reach beyond the immediate time and place of single actions is a question often asked with reference to the Transition movement (Cameron and Hicks, 2014, p. 62; Kenis, 2019; Kenis and Mathijs, 2014; Mason and Whitehead, 2012). Rather the question relates to the kinds of relations inscribed in engagements with the economic, political, and social systems they are embedded within, which often prevent more widespread changes occurring. As Loorbach et al. (2020, p253) point out, "the dominant logic of incumbent policies and markets is by definition at odds with the nature and dynamics of transformative innovation". Such systemic barriers — as part of constructed scalar hierarchies of action — include planning systems, local and national regulations, and the funding of community initiatives. For example, the Transition Initiative mentioned here is an example of community 'success': winning funding and hiring paid staff. But with this came the imperative to demonstrate effectiveness, gathering data on greenhouse gas emissions saved, which

introduced new practices, logics and goals into the group.

'Scaling up' community groups' impacts (Seyfang and Longhurst, 2016) then requires interacting with other, more 'top-down' changes taking place such as engaging with sectoral regulatory shifts. More broadly, community action cannot be divorced or disentangled from the myriad social and material processes that spread both inwards and outwards from the focus of community action (Eadson and Foden, 2019). Pragmatically community action inevitably must engage with hierarchy and instrumentality in other institutions and so tensions with community 'for itself' versus other agendas will always be present. For example, growing the renewable energy scheme or the farmer's market brings them into greater contact with markets, and entanglements with planning legislation. These often transform the doing of community, into the demonstrating of it. This makes it necessary to understand how hierarchical agendas are constructed and embedded within initiatives; how communities engage with, subvert or resist such agendas; and the extent that they shape the subjectivities of community action. This form of multi-scalar analysis is distinct from enjoining community initiatives to themselves vicariously enact transitions on a different scale, through upscaling.

3.2. Embedding community into government for carbon reduction: bounded community for displaced impacts

Community groups are at times created and or enabled through exogenous processes, such as funding schemes. For example, studies of the Scottish Government's *Climate Challenge Fund* show that some community groups were formed in response to the availability of funds (Dinnie and Holstead, 2018; see Mathers et al., 2015 for English examples). Other groups shifted focus, pursuing more pressing policy and funding framework. For instance, a large section of community energy schemes in remote rural Scotland spring from existing community groups and movements attracted by the financial opportunities of energy. Here, community is created and enabled by exogenous actors and trends, which in turn contribute to prevailing high-level agendas.

Community-led environmental initiatives undertake diverse activities designed to meet a variety of aims and which occur at different scales. Many initiatives aim to encourage change in their local communities through creating, for example, shared growing spaces, opportunities for recycling, upcycling or repairing, or increased awareness of climate change. Such activities and changes happen locally and can contribute to addressing climate change, with some research suggesting they can also improve social cohesion, social capital and individual and community wellbeing. Many such spill-over benefits of community initiatives, show the mistake in both double moves of vicarious scale. 1. The benefits leak out from a supposedly bounded site of community, and 2. They do so in ways that are often unpredictable, happenstance and context-dependent. However, qualitative evaluation of how community-led climate actions contribute to long-term changes in behaviour, knowledge and social norms around climate change are difficult for communities to assess (Dunkley and Franklin, 2017; Feola and Nunes, 2014; Hamilton et al., 2014). By contrast external evaluations — often non-negotiable with the receipt of external funding — become forms of 'governmental technology' (Rose, 1999), displacing community-led actions from the local scale to national and international scales, where they become part of 'Nationally Determined Contributions'⁴ Vicarious scale is not always about displacement of effects to 'distant' scales, however. The example of community involvement in delivery and management of green infrastructure shows how community action can be put to use and valued for its ability to achieve demonstrable cost

⁴ ⁴ The Paris Agreement sets out 'Nationally Determined Contributions' (NDCs) to limit emissions with the aim of keeping global temperature rise this century below 2 degrees Celsius above pre-industrial levels <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

savings for local authorities, providing work that would have otherwise been done by paid staff, and supporting policy goals such as economic growth and health and wellbeing (Mathers et al., 2015; Milbourne, 2012; Rosol, 2012). In terms of vicarious scale this displacement of impacts from local to global means that local tangible benefits (in air quality, or greenspace provision, or traffic noise for example) runs the risk of turning activists' concerns with environmental issues (such as climate change) from an experiential ecological practice into a science of government.

3.3. Upscaling community energy transitions

A focus on the elements that constitute a community initiative shows that community energy initiatives are always entangled with a range of scalar constructs. This might be through necessary engagement with 'national' energy regulations, local planning regulations or consent or international' energy markets. Individuals involved in community initiatives are also engaged with a wide range of connections through and outside their involvement e.g. other community initiatives, personal connections or through professional life. As individual and collective life is increasingly entangled with translocal (or more-than-local) networks, these multi-scalar connections continue to increase. Understanding community energy then needs to take into account forces and factors beyond the initiative such as funding landscapes, regulatory regimes and large incumbent actors (Creamer et al., 2018; van Veelen and Eadson, 2020). In practice, scaling-up of community energy transitions has meant a greater involvement in and entanglement with finance and markets, together with a loosening and watering down of the community development and involvement aspects (Eadson and Foden, 2019). At the same time, groups can upscale without direct engagement with higher level forces and factors. In England community energy initiatives have scaled-up work via intermediary groups like Community Energy England. Such groups can have no funding (by accident or choice) and choose to focus on their own immediate task at hand, connect with each other and form their own networks, outside of formalized institutions – a different type of upscaling (Creamer, 2015; Fischer et al., 2017). Yet, these intermediaries also feed directly into policy discussions and so play a role in shaping the form of community energy. It is important to recognise here that these two different imaginaries are at play—the formation of intermediaries can leave the specific community initiatives themselves alone, insulating them from needing to engage in demonstration or inspiring. This shows an alternative scalar imaginary on offer, not only vicarity.

For all the attention on community energy initiatives, the sector still plays a minor role in national energy systems. In the early 2010s, hopes were high for innovative, low-carbon forms of localised energy generation and consumption to play a significant role in the transition to more sustainable energy systems (Bridge et al., 2013; Devine-Wright and Wiersma, 2013; Eadson, 2016; Kunze and Becker, 2015; Walker et al., 2010; Walker and Devine-Wright, 2008, inter alia.). For example, the now-defunct UK Department of Energy and Climate Change (DECC) outlined how community energy groups have a key part to play in 'the global race to decarbonise our society'. This included increasing energy security; the creation of 'green growth and green jobs'; and helping people struggling with energy bills (DECC, 2014; 2015). Advocates and practitioners likewise had high hopes, although arguably advocating localisation of a different flavour (Hobson et al., 2016a; Hobson et al., 2016b), such as the representative body Community Energy England's assertion that:

'By placing democratic control, shared benefits and active participation at the centre of energy generation and demand reduction projects, community energy can create a foundation for the step change in the action needed to reduce the impact of climate change and to increase our energy security' (<http://communityenergyengland.org>).

As the community energy field has become established and matured, there is a notable shift in the type of scholarship that is published. Early community energy research focused on the creation and growth of new scheme (Haggett and Aitken, 2015; Hargreaves et al., 2013; Middlemiss and Parrish, 2010; Seyfang et al., 2014; Seyfang and Haxeltine, 2012; Smith et al., 2016). Both these initiatives, and much of the research on them, focused on the legislative, financial, and administrative challenges, orienting away from the local (Braunholtz-Speight et al., 2020; Haf et al., 2019; Haf and Parkhill, 2017). More recently there has been a shift in research focus, with increasing attention given to how to sustain such initiatives. In this context recent research addresses the role that interpersonal emotions play in community energy initiatives (Robison, 2019; Rohse et al., 2020; Walker and Cass, 2007), a field argued as needing greater focus (Rohse et al., 2020). Underlying this shift in focus of community energy work is an awareness that community initiatives cannot be neatly replicated or enlarged. Every move towards upscaling is also in intervention in entangled relations. The commitment, passion, disappointment, frustration, and exhaustion groups go through remain, in Tsing's terms, non-scalable (Haf et al., 2019), while being integral to group coherence and impact (Creamer et al., 2019). Thus, it is feasible to talk about upscaling group energy, or local energy rather than community energy (Devine-Wright, 2019a; Devine-Wright, 2019b).

While most literature discussing the role of community as a vehicle for transition is wedded to a hierarchical and linear vision of scale, there are empirical examples from which to build a more relational theory of upscaling. For example, the *Energiewende Partnerstadt*⁵ initiative in Germany seeks to 'twin' community initiatives who can learn from and encourage one another. Successful initiatives are not seen as examples of 'best practice' which can then be copied, or transplanted elsewhere. Nor are they given funds to grow and take on board more members, projects, and generating capacity. Instead, successful initiatives are paired off, to 'journey' with one another, sharing affects and deepening the innovations they have already begun. Nunes and Parker (2021) more recently discuss the role that 'scaling-back' can have in retreating from the instrumental logics discussed here. If this is upscaling it is more of the non-instrumental embedding kind, than growing, replication, or spreading.

Examples such as *Energiewende Partnerstadt* thus provide a counterweight to discourses of upscaling, which often rest on an assumption of scale as nested and linear hierarchies, set in a passive background of a stable social, economic form (see also Bouzarovski and Haarstad, 2019). In this article we have explored scalar arguments by looking at the role of community in transition theory, policy and practice, where discussion of upscaling is abundant. This argument aims to contribute to the emergent literature critical of the insertion of instrumentality into grassroots community movements (Taylor Aiken, 2018), in particular how scale, and particularly upscaling, is a key factor in furthering an instrumental logic onto and with community initiatives. Upscaling affects community initiatives when it places their worth not in what they currently are or do, but only in what they could potentially become, and vicariously achieve. Upscaling restricts community when it reduces initiatives and involvement to a rung on a ladder, with community belonging to the bottom rung, and in a specific place. In the categories of Table 1, replicating, growing, and spreading all indicate a form of vicarity, implying displaced effects: embedding and partnering less so, as they have less of an instrumental aspect. Indeed, it would be interesting to see more research done on how the form of upscaling impacts on the transformative character or otherwise of the community initiative. For these reasons, the *Energiewende Partnerstadt* model of diffusion (partnering) can be argued as less instrumental than initiatives which seek to grow, replicate, or spread.

⁵ 5

<https://www.unendlich-viel-energie.de/die-agentur/projekte/energiewende-partnerstadt/energiewendepartnerstadt> Accessed 18th January 2020.

In many of the examples noted here, vicarious scale is more often about what community is said to be, rather than claims to what community is. In part this may be due to much of the comparative research on community initiatives that do not utilise methodologies that facilitate detailed ethnographic insight. In conclusion we argue that vicarious scale is more of a representational phenomenon than one in practice. A local energy cooperative can alter a national energy sector, even without any ambition to do so. In this they are much more about relationality in a local and supra-local sense, following a non-hierarchical notion of scale. However, from the outside, these community initiatives are often read onto a hierarchical, scale-as-level background, which accompanies vicariousness and instrumentality of community initiatives.

Going forward, entangled research needs to grapple with how and to what extent community initiatives engage with ‘tactical scaling’, where initiatives pragmatically align with a view of community that places it against an instrumentalising and vicarious backdrop. Community initiatives regularly compromise when dealing with fragility of finance, motivation, and coherence. In grappling with how to deliberately think and enact prefigurative practices—deliberate attempts to do something new or alternative—how and in what ways these initiatives ally with dominant logics such as common sense scalar assumptions is important for future research on community initiatives.

4. Conclusion

This article has set out some ways to reconsider scale with a view to reorienting visions of what community is ‘for’ in the context of sustainability. It provides some critique of existing logics and suggests alternative ways of thinking. The goal is to be a starting point for a wider conversation in research, encouraging more empirical research into the ‘entangled’ or multi-scaler nature of community action, and how communities can resist or subvert dominant imaginaries. It also aims to provide the basis for engagement with policy and practice, to show how community might be ‘done differently’. The political consequences of this are not only in the theoretical, or ontological realm. The effects of reading community onto a mainstream, or intuitive fiction version of scale renders community as vicarious.

In an original approach to understanding community transitions, this article has pointed to the dual expectations involved. The restricted vision of community lends itself towards the vicarious scale perspective found in upscaling rhetoric. Moore (2008) makes it clear that of the concepts of space that accompany hierarchical scale, the notion of bounded space or container space are central. Accompanying this, when community initiatives and experiments delimit their scalar horizon it is common for them to set a size limit on the optimal size of community. Here, there are simple social and spatial boundaries that are entangled with the scalar imaginary of community. However much this category is not seen as hermetically sealed (viz. vicarious scale), they are in an everyday, common sense way posited as existing, and somehow naturalised. In this way the argument is relevant for not only human geographers and other interdisciplinary researchers of community transitions, but also those practically involved within them, from both the policy and practitioner sides.

Why does this matter? By giving a name to the processes of vicarious scale, and the ways in which it is connected with an instrumental logic, there are numerous lessons that can be insightful for both community policy makers and practitioners. For policy makers, this suggests that even when generously funded or benevolently guided, the setting of targets, such as greenhouse gas measurements and reductions, can insert an instrumental logic into such groups. Funding schemes offering seed funding, or exploratory funds hoping to find innovative (new), or examples of best practice to be rolled out elsewhere often miss the mark. What aids community action for sustainability is often the removal of such targets, rather than the explicit or tacit encouragement of initiatives to grow, and spread. Groups sometimes purposefully aim to do the exact opposite, being intrinsically aware of the risks and pitfalls of up-

scaling, preferring instead models such as the *Energiewende Partnerstadt* that help groups slowly build and create shared affects that are resolutely non-scalable while being the key dynamic that helps groups exist and sustain themselves. We end this paper with a call for more in-depth work outlining how and why vicarious scale emerges within these community initiatives. Such an approach would be informed by the theoretical outlines we have charted here, but would be focused on the context in which these visions and perspectives on community emerge. We see this as both a policy analysis and a view on how these visions and expectations emerge within the community groups themselves.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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