What triggers individual climate actions in different neighbourhoods? Individual, collective, cultural, and socio-structural factors

Authors:

Christian A. Klöckner[1], Michael Brenner-Fliesser[2], Giuseppe Carrus[3], Eugenio De Gregorio[4], Erica Löfström[1], Ruzica Luketina[2], Anni Niemi[5], Hanna Pihkola[5], Stephan Schwarzinger[2], Lassi Similä[5], & Laura Sokka[5,*]

Affiliations:

[1]Norwegian University of Science and Technology, Trondheim, Norway

[4]JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz, Austria

[3]Roma Tre University, Rome, Italy

[2]Link Campus University, Rome, Italy

[5] VTT Technical Research Centre of Finland Ltd, Espoo, Finland

(*) Current affiliation: Finnish Environment Institute (Syke), Helsinki, Finland

Communicating author:

Christian A. Klöckner

Norwegian University of Science and Technology

Department of Psychology

7491 Trondheim, Norway

Christian.klockner@ntnu.no

Abstract

This paper takes a multi-perspective approach to understand drivers and barriers of climate action on the neighbourhood level in a selection of European neighbourhoods. The starting point for the analysis is the assumption that actions on the level of citizens to protect the climate are most motivating and promising, when conducted jointly within established social systems like neighbourhoods. The aim of this paper therefore is to identify most relevant factors that are associated with climate actions of individuals on the neighbourhood level. To do so, the paper outlines the multiple perspectives chosen for the analysis of drivers and barriers on the individual, collective, cultural, and socio-structural level. Based on this, a survey was designed to measure these aspects and implemented in nine European neighbourhoods (3 in Austria, 2 in Norway, 2 in Italy, 2 in Finland). The neighbourhoods were partly in rural communities (4) and partly in urban or semi-urban areas (5). In total, 1.084 answers were retained between summer 2022 and summer 2023. The impact of factors from the different perspectives on the self-reported number of implemented climate actions were tested in a structured, regression-based approach. The analyses show that intentions to act both on the individual and collective level impact the number of climate actions implemented by citizens living in the neighbourhood, but individual intentions are more important. In addition, local cultural aspects have an impact on climate action. Individual intentions to act are slightly less important in rural, than in semi/urban neighbourhoods. On the socio-structural level, males and households with younger children report fewer climate actions, whereas larger households in general and people with university degree report more. Intentions to act individually are mostly determined by perceived individual efficacy and attitudes, but also selected cultural and socio-structural factors. Collective intentions to act depend on the social capital in the neighbourhood and social norms, as well as selected socio-structural and cultural factors. Concluding, this paper emphasises that in order to understand, implement (and increase) the climate-related actions of citizens efficient, the individual, collective, cultural and socio-structural factors must be taken into account and that the level of neighbourhoods, where everyday action takes place, is a relevant unit of analysis to do so.

Keywords

Neighbourhood climate action, multi-perspective approach, individual, collective, structural, cultural.

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Ethical clearance

The study was approved by the following committees for research ethics: Norwegian Agency for Shared Services in Education and Research, Ref.nr. 121957; VTT Ethical Committee (statement code 8_2022); Ethical Commission Roma Tre (meeting 15 Feb 2023).

Data availability

The data these analyses are based on can be accessed here: https://zenodo.org/records/10992143

Climate actions on the neighbourhood level – individual, collective, cultural, and socio-structural factors

Introduction

Environmental crises like climate change and biodiversity loss require fast global action (Brondizio, Settele, & Díaz, 2019; Masson-Delmotte et al., 2019). While the fundamental decisions need to be taken on the inter-government level, a strong focus has also been put on the role of the individual in this transition – especially in western, resource intensive societies (Swim et al., 2009). At the same time, this approach has been criticized for over-emphasising the individual's role and "blaming the consumer", thereby ignoring the role of systematic socio-structural and cultural influences (Evans, 2011; Holm, 2003; Shove, 2010).

Alternative approaches propose that individuals are strongly embedded in socio-technical systems, which means that there are both socio-cultural, political, as well as technological systems that shape their choices in parallel to individual factors such as for example attitudes, knowledge, or self-efficacy (Dwyer, 2011; Hampton & Whitmarsh; 2023; Schmitt et al, 2020). This analytical perspective also poses an analytical challenge as scale and system complexity render empirical work unmanageable. Thus, using a neighbourhood as a unit of analysis of a socio-technical system appears to be a viable unit for studying and measuring. Even though the neighbourhood is indeed dependent of larger socio-technical systems, such as the infrastructure of a city, the systems border makes these outer conditions more visible and manageable. Neighbourhoods are where people live and where they spend most of their free time and where many concrete climate actions individuals can engage in are implemented (Joshi, Agrawal & Lie, 2022). Yet, a comprehensive study analysing and comparing the drivers and barriers of climate action on the neighbourhood level in a selection of European neighbourhoods with a rich variety of characteristics, has to our knowledge not been conducted before. Such a study can help unravelling the complex social, psychological, political, and structural conditions of local climate action. Thus, the aim of this paper is to analyse and better understand how individual, collective, cultural, and socio-structural factors contribute to the development of local climate-action, when investigated simultaneously.

A comprehensive multi-level perspective on local climate action

In this article, we define the *neighbourhood* according to the perspective of the ecological theory of Bronfenbrenner (1979), i.e. as a *microsystem*. A neighbourhood is essentially a unit representing a group of people living together in proximity, forming a social system of interrelations. A definition of the complex phenomenon of "neighbourhood" as presented in Carrus et al. (2023) includes the physical dimension (Holland, Burgess, Grogan-Kaylor, & Delva, 2011; Shelton & Poorthuis, 2019), sociodemographic characteristics (Komeily & Srinivasan, 2016), aspects of identity (Peng, Strijker and Wu, 2020), institutional and administrative aspects (Lenzi et al., 2012), as well as social relationships (Holland et al., 2011). However, before we explore the relation of neighbourhoods to climate actions more, we first need to understand, what constitutes a neighbourhood for its members.

In a recent paper, von Stülpnagel, Brand, and Seemann (2019) delineate the physical space people assign to their understanding of a neighbourhood and find that the prevailing approach of assuming a neighbourhood being defined purely by distance to the residence of the respondent falls substantially short. They rather recommend using an approach based on cognitive mapping of the neighbourhood, which also allows respondents to take other factors into account. Thus, identifying what constitutes a neighbourhood for an individual is already a complex task: A neighbourhood can be defined as a

physical space with boundaries given by waterways, main streets, by administrative references or by a particular type of social relations. Residents of a given neighbourhood may identify its boundaries differently than administrative boundaries by referring to social or cultural criteria (Holland et al., 2011). In our study, we used a combination of physical-structural borders (e.g., groups of residential buildings, dividing traffic infrastructures), administrative units, as well as a social definition of the neighbourhoods (by probing residents for what they understand as their neighbourhood in an early stage of the project) as our starting point for the analyses.

The physical aspects of neighbourhoods are considered predictors of residential satisfaction or of the perception of urban (in)security (Gueorguiev, Gómez, & Hill, 2008). These considerations relate to the structural and cultural dimensions of life in neighbourhoods (see Figure 1 below, which gives an overview about the different perspectives we see as relevant for climate action on the neighbourhood level). In addition to its physical and cultural dimensions, a microsystem is also an integrated system of activities, "roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (Bronfenbrenner, 1979, p. 22). Moving towards the more institutional dimensions, we can observe that the neighbourhood is the place where a lot of everyday face-to-face communication takes place: Everyday problems are discussed, especially if connected to the neighbourhood or if it affects multiple persons in this neighbourhood. It is also very likely that opinions on various subjects are exchanged in this everyday communication.

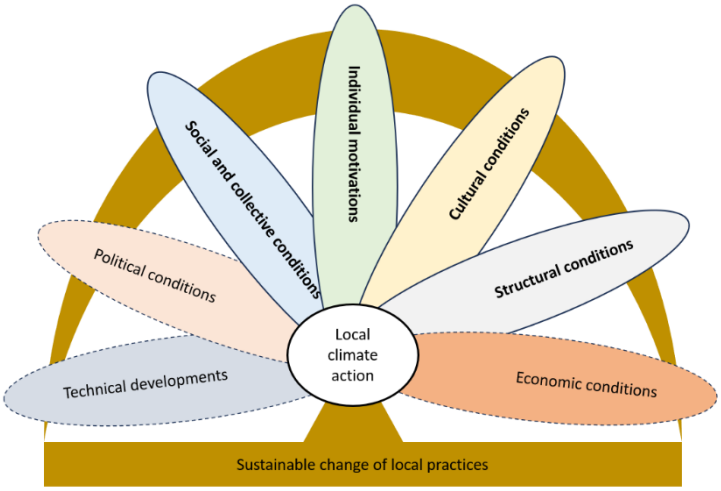

Fig. 1: An overview of the multi-perspective model of local climate action (technology, policy, and economy are not studied in this paper).

The development of technologies has a primary role in the quality of relations between the citizens of the same neighbourhoods; if before we used to go knocking to ask for some salt or a screwdriver, now it is enough to visit an e-commerce site to order what is needed to be delivered home in half a day. Already in the 1980s, Unger and Wandersman (1985) stated that the nature of the social bonds of the urban neighbourhood is modified by the presence of technologies (both in communication and in transport). The social interaction is completed with the support between the members of the society and the networks in which each member is inserted. Social support mainly refers to the availability of the other as a resource, to the presence of a support that is given by the co-presence of others similar to me (Weenig, Schmidt, & Midden, 1990).

In this way, the different levels are always inevitably linked to each other. Individual attitudes are interdependent with social and economic conditions, it is difficult to think of the well-being of the planet if one does not live in a condition of sufficient personal well-being. These aspects of individual

and social well-being predispose people to pro-environmental motivations that can be supported, fostered, and carried out by institutions and politics. In the following sections, we zoom in on some of these aspects in more detail to provide the ground for our analysis in this paper. We will not cover all aspects of the multi-perspective model outlined above, but focus on factors, that we consider most central (and possible to study with the methodology we chose for this particular paper).

Individual factors influencing climate action

While we have argued so far that an overly individualistic perspective on climate action is not reflecting the complexity of such decisions correctly, fully neglecting the influence of individual choices and differences is equally inadequate. Therefore, we start our exploration of potentially impactful factors with the individual level. Environmental psychology and environmental sociology have produced a multiplicity of theoretical frameworks (Klöckner, 2013), but in particular, the link between attitudes, norms, self-efficacy and actions was examined (e.g., Ajzen, 1991).

Consistently, intentions to act have been linked to climate-related actions, although this link is fragile and can be disrupted if strong habits or situational barriers are interfering (Klöckner & Blöbaum, 2010). These intentions are strongly depending on the attitudes a person has towards the different behaviours, thus, the general evaluation of the behavioural alternatives as positive or negative. Furthermore, research shows that social norms (social influence) is an important factor, particularly in close-knit social systems such as neighbourhoods (Thøgersen, 2006). Also, an assessment of one's capability to implement the behaviour, often referred to as self-efficacy, is among the most consistent factors that influence taking climate action (Bostrom, Hayes, & Crosman, 2019). We are aware that there are many more individual-level variables which have been linked to climate action (e.g., habits, personal norms, knowledge), but we decided to stick to the ones included in the most applied single theory (Theory of Planned Behaviour, Ajzen, 1991) to be able to cover a substantial number of factors from the other areas as well in the analysis.

Social and collective factors influencing climate action

Social norms can be considered a linking factor between the individual and the collective level, and therefore be relevant on both levels. Bamberg, Rees, and Seebauer (2015) proposed that such collective level factors can become relevant for collective climate action, adding collective intentions to act and collective efficacy to the list of factors that might be relevant. For our analysis, we will therefore make a distinction between individual level factors (in our case individual intentions, attitudes, self-efficacy, and social norms), and collective, neighbourhood-level factors, which mirror these.

Among the collective aspects determining choices we can also find social identity. Social identity theory assumes that individuals derive their self-identity from membership in particular social groups (e.g., neighbourhoods), and therefore tend to adhere to norms of such groups. If "separating household waste" or "purchasing local food" is a group norm, an individual will be likely to undertake this behavioural pattern, to the extent that they identify with that particular group (Carrus, Nenci, & Caddeo, 2009; Terry, Hogg, & White, 1999).

Finally, we consider acknowledgement within the neighbourhood about consequences of the neighbours' actions for the climate (collective awareness of consequences), and the trust residents have in other actors in the neighbourhood as relevant collective-level factors. Awareness of consequences has been found to be relevant on the individual level (Klöckner, 2013), but has rarely been studied on the collective level. Other than the individual awareness of the potential negative outcomes of one's own actions, the collective awareness further includes the agreement and communication about that on the local level. Trust is a key component of a neighbourhood's social

capital. Trust means that people assume that the neighbours act with people's best interests in mind, are honest, and have the necessary competence to act with respect to climate change (Earle & Siegrist, 2006).

Cultural factors influencing climate action

Another level up in the analysis, the cultural level can be located. With respect to energy behaviour, the cultural influences have often been conceptualized as energy cultures (as for example in Stephenson et al., 2010). Energy cultures capture the cultural assumptions on which behaviours are adequate, the collectively shared experiences, narratives, beliefs, understandings, technologies, and activities. They shape the public perception and reaction to climate change (Shi, Visschers, & Siegrist, 2015). Also, cultural worldviews influence the ways in which people perceive climate change risk (McNeeley & Lazrus, 2014; Weber, 2010, 2016). Chan and Tam (2021) found that the association between climate change concern and mitigation behaviour was particularly strong in societies where self-expression affordance had high levels, which are countries with lower threat for serious diseases, better governance, good economic development, and stronger individualism.

However, measuring cultural factors that may influence climate action is challenging. Whilst highly integrated frameworks such as "Energy Cultures" (Stephenson et al., 2010) provide orientation and can serve as a basis for specific adaptations, their empirical operationalization for statistical modelling is complex due to their large number of required variables. Therefore, using variables like the country of residence or urban vs. rural environment as proxies for "culture" is a common procedure (Taras, Rowney & Steel, 2009). For example, Thøgersen used "country" as proxy for the specific constellations of factors potentially influencing housing related energy saving practices and diets in different contexts (Thøgersen, 2017a, 2017b). Similarly, Schwarzinger, Bird, and Skjølsvold (2019) used "country as cumulative proxy for the local cultural context in a study on multi-domain energy behaviour. We follow this approach in our study.

Socio-structural factors influencing climate action

The influence of socio-structural factors on climate behaviour and climate action has been widely reflected in both theoretical literature and empirical research. In theoretical and conceptual contributions, there are frameworks that make the crucial role of socio-structural factors explicit. One example is the lifestyle model by Lüdtke (1996) which brings the components "Performance" (reflecting behaviour) and "Mentality" (reflecting psychological characteristics) into relation with "Situation" (reflecting mainly socio-economic variables).

In empirical work, recent findings emphasize the importance of a thorough coverage of socio-structural factors in the analysis of climate related behaviour and resulting impacts. For example, results obtained by Schweighart, Schwarzinger, and Bird (2020) show that using household composition in regression models increases the explanatory power. Hornsey, Harris, Bain, and Fielding (2016) show that even if other variables are more important predictors of climate change perception, socio-demographics such as gender, age, or education are relevant. Reichl, Cohen, Klöckner, Kollmann, and Azarova (2021) find a below average social status as one of the most important factors negatively related to climate change action and also other factors such as gender or age to be relevant.

Analysed factors from the multiple perspectives

As the literature review demonstrates, many factors on many different levels have been shown to impact how likely it is that citizens make decisions to engage in climate action in their local environment. Table 1 displays the specific factors from the four analysed levels that have been selected to be implemented in our study. To limit the length of the survey, the number of factors to be included had to be restricted. On the individual level, four factors from the Theory of Planned Behaviour have been selected: (individual) intentions to act, attitudes towards climate action,

perceived (individual) efficacy, and social norms. Three of these are mirrored on the collective level (intention, efficacy, and social norms). Identification with the neighbourhood, perceived collective awareness about climate issues in the neighbourhood, the social capital in the neighbourhood, and trust in neighbours were also measured.

On the cultural level, three variables which serve as proxies for (potentially) different local cultures are used: (a) the country the respondents live in, (b) rural vs. (semi)urban, and (c) the time of residence in the neighbourhood.

On the structural level, a number of sociodemographic variables like gender, age, household size, number of household members below 14 years of age, social status, education and work situation were recorded. The measurement instruments for each of the factors are described in more detail in the method section below.

Tab. 1: *Mapping of the selected factors on the four analysed perspectives of local climate action.*

Individual level:	**Social / collective level:**
• Individual intention to act • Attitudes towards climate action • Perceived individual efficacy • Social norms	• Collective intention to act • Perceived collective efficacy • Social norms • Identification with the neighbourhood • Collective awareness of consequences • Social capital in the neighbourhood • Trust in neighbours to contribute to climate action
Cultural level:	**Socio-structural factors:**
• Country (as proxy for the local culture) • Rural (vs. semi/urban) neighbourhood (as proxy for urban vs. rural worldviews) • Time of residence in the neighbourhood (as proxy for how established people are)	• Age • Gender • Household size • Number of household members under 14 years • (self-reported) Social status • Education • Work situation

Method

Sample

From summer 2022 to summer 2023 (data collections were not conducted synchronized in all four countries), citizens in nine European neighbourhoods were asked to answer the questionnaire including measures for the factors outlined above. The neighbourhoods had been studied with qualitative methods (document analyses, expert interviews, interviews with residents, focus groups) before to develop an understanding of the prevalent challenges and topics that would need to be reflected in the quantitative survey. Data collection varied between the neighbourhoods based on what the local research teams assessed as being the potentially most successful approach. In Austria, data was collected with paper-pencil questionnaires distributed in the selected neighbourhoods by mail as well as with an online questionnaire, also available in English and Turkish. In Norway, the researchers hired local adolescents to go from door to door in the neighbourhoods to distribute an invitation letter with the link to an online version of the questionnaire. In Italy, a similar approach was

chosen. In Finland, a survey company was contracted to conduct the survey as a telephone interview with citizens in the selected regions.

In total, 1.084 responses were collected, distributed very unevenly across the neighbourhoods (see Table 2) due to two factors: the target neighbourhoods have very different sizes, varying from under 400 residents in the smallest to about 30,000 residents in the largest; recruitment methods differed in success rate. The neighbourhoods were also very different in their social profiles, which was the aim of the study design: Some have an older population with many retired people, some have a younger population with many families with children. In some, more men answer than in others. There are differences in self-reported social status and education levels. All socio-demographics in Table 2 show statistically significant differences between the neighbourhoods (with p≤.002).

Tab. 2: *Overview of the respondents in the different neighbourhoods.*

	Neighbourhoods									Total
	Admont	**Eggenberg**	**Jakomini**	**Driva**	**Myrslett a**	**Simo**	**Pyhäntä**	**Guidonia**	**Macomer**	
Country	Austria	Austria	Austria	Norway	Norway	Finland	Finland	Italy	Italy	
Type	Rural	Urban	Urban	Rural	Semi urban	Rural	Rural	Semi urban	Semi urban	
N	274	207	287	14	28	100	100	37	37	1.084
Percentage of total residents in the neighbourhood	5.5%	1.0%	1.0%	3.5%	5.6%	3.4%	6.3%	0.2%	0.4%	1.3%
18-34 years	15,7 %	28,0 %	36,2 %		21,4 %	8 %	10 %	22 %	41 %	23.2%
35-49 years	21,2 %	27,5 %	20,2 %	30,8 %	50,0 %	9 %	13 %	38 %	14 %	21.4%
50-65 years	33,9 %	25,1 %	25,4 %	46,2 %	14,3 %	26 %	32 %	41 %	43 %	29.3%
more than 65 years	29,2 %	18,8 %	17,8 %	23,1 %	14,3 %	57 %	45 %	0 %	3 %	25.9%
male	50,5 %	38,3 %	49,5 %	50,0 %	42,9 %	59,0 %	58,0 %	38,90 %	21,60 %	47.8%
female	49,1 %	59,2 %	50,2 %	50,0 %	53,6 %	41,0 %	42,0 %	61,1 %	78,4 %	51.4%
divers	0,4 %	2,4 %	0,3 %	-	3,6 %	-	-	-	-	
Average household size	2.1	2.0	1.9	2.9	3.3	2.1	2.3	2.4	2.7	2.2
Average number below 14 years	0.4	0.5	0.4	0.5	1.2	0.2	0.3	0.7	0.4	0.4
Social Status (0=worst, 10=best)	6.1	6.4	6.3	7.1	6.5	a	A	7.1	6.9	6.3
Primary School	4,4 %	6,4 %	7,5 %	-	3,6 %	18,0 %	19,2 %	5,40 %	2,70 %	8.2%
Vocational education	46,9 %	20,8 %	20,4 %	14,3 %	10,7 %	48,0 %	42,4 %	2,70 %	-	30.2%
Secondary school / college	27,3 %	20,3 %	25,4 %	-	14,3 %	6,0 %	7,1 %	62,20 %	43,20 %	22.7%
University or comparable	18,8 %	49,0 %	44,4 %	85,7 %	71,4 %	20,0 %	26,3 %	29,7 %	43,2 %	35.5%
Other	2,6 %	3,5 %	2,2 %			2,0 %				2.1%
Paid work (more than 30 hours/week)	41,2 %	51,8 %	42,2 %	35,7 %	57,1 %	18,2 %	35,0 %	45,9 %	32,4 %	40.9%
Paid work (up to 30 hours/week)	9,7 %	12,2 %	10,5 %	7,1 %	3,6 %	-	-	8,1 %	10,8 %	8.3%
Self-employed	6,0 %	4,1 %	5,5 %	21,4 %	-	-	-	27,0 %	24,3 %	5.8%
Retired/pensioned	39,3 %	22,8 %	26,2 %	28,6 %	14,3 %	62,6 %	49,0 %	2,70 %	2,70 %	32.5%
Not in paid work	0,7 %	2,0 %	2,2 %	-	-	-	-	5,4 %	2,7 %	1.4%
Fulltime in education	1,1 %	6,6 %	9,5 %	-	-	5,1 %	4,0 %	10,8 %	27,0 %	6.2%
Unable to work	0,4 %	-	3,3 %	7,1 %	17,9 %	4,0 %	6,0 %	-	-	2.5%
Other	1,5 %	0,5 %	0,7 %	-	7,1 %	10,1 %	6,0 %	-	-	2.4%
Living in the neighbourhood for 0-4 years	8,8 %	29,8 %	28,0 %	-	42,9 %	1,0 %	5,0 %	5,4 %	35,1 %	18.3%

Living in the neighbourhood for 5-9 years	5,9 %	12,2 %	19,2 %	-	28,6 %	-	5,0 %	5,4 %	2,7 %	10.4%
Living in the neighbourhood for 10-20 years	10,6 %	20,0 %	23,1 %	21,4 %	14,3 %	7,0 %	4,0 %	59,5 %	13,5 %	16.8%
Living in the neighbourhood for more than 20 years	74,7 %	38,0 %	29,7 %	57,1 %	14,3 %	92,0 %	86,0 %	29,70 %	48,60 %	54.3%
Cabin user	b	b	b	21,4 %	b	b	B	b	b	0.3%

[a] Social status was not recorded in Finland. [b] cabin use is only relevant in Driva.

Ethics

The study was approved by the following committees for research ethics: Norwegian Agency for Shared Services in Education and Research (Ref.nr. 121957), VTT Ethical Committee (Statement code 8_2022; Ethical Commission Roma Tre (meeting 15 Feb 2023). For the Austrian sample, an ethical clearance was not required for an anonymous paper-pencil survey as per ethical procedures of Joanneum Research. Participants gave informed consent to participate after being informed about their rights at the beginning of the survey by delivering the paper-pencil survey in Austria or clicking the “begin survey” button in the online surveys. No minors were included in the study.

Analysis strategy

The analyses were conducted in four consecutive steps:

(1) All multi-item measurement instruments (see section below) were tested with factor analyses (more specifically a principal component analysis) for fit with the factor structure, then mean scores for the scales were calculated, and their internal consistencies checked with Cronbach’s alpha in addition.

(2) The outcome variable self-reported number of implemented climate actions was regressed on individual and collective intentions to act (Model 1 in Tab. 3), before the cultural level factor main effects (see Tab. 1; Model 2 in Tab. 3), the interactions between the intentions and the cultural level factors (Model 3 in Tab. 3), and the structural level factors (Model 4 in Tab. 3) were added.

(3) The individual intention to act was regressed on attitudes towards climate actions, perceived individual efficacy, and social norms (Model 1 in Tab. 4). Consecutively, the cultural factor main effects (Model 2 in Tab. 4), their interactions with the individual level predictors (Model 3 in Tab. 4), and the structural level predictors (Model 4 in Tab. 4) were added.

(4) The collective intentions were regressed on identification with the neighbourhood, perceived collective efficacy, collective awareness of consequences, social norms, trust in neighbours to contribute to climate action, and social capital in the neighbourhood (Model 1 in Tab. 5), before the cultural level main effects (Model 2 in Tab. 5), their interactions with the collective level predictors (Model 3 in Tab. 5), and the structural level predictors (Model 4 in Tab. 5) were added.

Measurement instruments

Behaviour

To measure the generalized climate actions the respondents implement, they were confronted with a list of behaviours (see Appendix A) and were asked to indicate, which behaviours from the list they already perform. The initial list of behaviour was compiled based on a selection of individual behaviours with the highest CO_2 reduction potential as outlined in Van de Ven, González-Eguino, and Arto (2018). The authors then discussed internally this list and supplemented behaviours that were important for the neighbourhoods in the sample (e.g., hunting in the rural neighbourhoods).

Individual intention and collective intention

Individual and *collective intentions* were measured by one item each, following the standard intention items as used in the Theory of Planned Behaviour research (e.g., Nayum & Klöckner, 2014), but adapted to the individual and collective focus (see Appendix B for a complete list of items).

Individual level predictors

On the individual level, attitudes, perceived individual efficacy, and social norms were measured as recommended in Theory of Planned Behaviour research. *Attitudes* were measured by three items, which all loaded strongly on one factor. Cronbach's alpha of the composite score was .81. *Individual efficacy* was also measured by three items, which all loaded strongly on one factor (Cronbach's alpha .77). Finally, *social norms* were measured with three items, with strong loadings on one factor (Cronbach's alpha.64).

Collective level predictors

Perceived collective efficacy was measured by three items adapted from Hamann, Holz, and Reese (2021). The items load strongly on one factor (Cronbach's alpha .74). *Collective awareness of consequences* was measured by two items, following the Norm-Activation Model tradition (Klöckner & Blöbaum, 2010; Schwartz & Howard, 1981). Both items load very high on one factor (Cronbach's alpha .76). *Identification with the neighbourhood* was measured with four items following the social identity research (Fritsche, Barth, Jugert, Masson, & Reese, 2018; Williams & Vaske, 2003). All four items have strong loadings on one factor (Cronbach's alpha .92). *Trust in the neighbours* to act was measured with three items following research by Earle and Siegrist (2006), measuring trust with the three dimensions perceived fairness, perceived honesty, and perceived competence of the actor- All three items load strongly on one factor (Cronbach's alpha .79). Social capital in the neighbourhood was measured by seven items capturing components developed specifically for this study. Loadings on one factor are medium size to strong (Cronbach's alpha .79).

Cultural level predictors

On the level of local culture, three proxy variables have been used: One item indicating the country of residence to capture the national cultural differences, on item indicating if the neighbourhood was rural or (semi)urban to capture the dimension of rural vs. urban lifestyles, and the length of residence in the neighbourhood. The latter was dichotomized for the analyses into less than 20 years and 20 years or more. Country was dummy coded with Austria (the largest sub-sample) as a reference category. In the analyses, also the interactions between these cultural level predictors and the individual level and collective level predictors were included. Interaction terms were calculated (with mean-centred values for the continuous variables).

Structural predictors

On the structural level, the socio-demographic variables as listed in Table 2 were recorded (with the categories listed there). Social status was measured by an item which was used in previous research (Reichl et al., 2021). The respondents were asked to indicate where they consider themselves on a ladder where the lowest step (1) represents the people that are the worst off and the highest step (10) represents the people that have it exceptionally well.

For the analyses, gender was recoded into a dummy variable with identification as male as 1 and all other categories as 0. Education was dummy coded into having a university degree (1) vs. all other categories (0). The job situation was dummy coded into working (full time, part time or self-employed = 1) vs. all other categories (0).

Results

Tables 3-5 and Figure 2 show the results of the analyses. In Table 3, four models are reported that test the influence of individual and collective intentions to act on the reported number of climate actions. In Model 1, both intentions have a significant influence on the number of climate actions, with the individual intention being the much stronger predictor. In Model 2 and 3, the five dummy variables for the cultural variation are added first as main effects, then also as interaction terms with the two intention types. When only the main effects are added, collective intentions no longer have a significant influence on the number of climate actions, and in the sample from Finland, the number of reported actions is significantly lower than in the other countries. The number is slightly lower in Italy, when only the main effects are added. This effect disappears when the interactions are added to allow for between country variation in the effects of the intentions. Now, both intentions regain their statistically significant influence, Finland still shows a significantly lower number of reported actions, and (keeping all other aspects constant) slightly more actions are reported in the rural neighbourhoods. In the final Model 4, including also the structural control variables, a similar picture emerges. In addition, some of the structural components have a significant influence on the number of actions: men report fewer actions, members of larger households more actions, respondents from households with children report fewer actions, and respondents with a university degree report more actions. Finally, in the full model, the interaction between the individual intention and living in a rural neighbourhood becomes significant, indicating that the link between intentions and action is weaker in rural areas than in semi/urban. The strongest influences on the number of actions are living in Finland and individual intentions.

Table 4 shows the results of the regression of the individual intention on the core variables of the Theory of Planned Behaviour, the cultural components, and the structural aspects. In Model 1, attitudes and individual efficacy are significant predictors of the intentions to act on the individual level. When the proxies for the cultural components are added as main effects, this picture does not change. Again, living in Finland becomes an additional significant predictor (reducing the intention to act individually significantly). When also the interactions are added, attitudes and individual efficacy still remain significant, living in Finland still has a main effect, and the interaction between individual efficacy and individual intentions turns out significant as well, indicating that the link between efficacy and intentions on the individual level is weaker in the Finnish sample than in the other countries. When the structural components are added in the last step, the previously described relations remain significant. In addition, living in a rural neighbourhood has a slightly positive effect on the individual intention strength (controlling for all other factors). People with a higher self-reported social status and with a university degree report stronger individual intentions to act against climate change. The strongest predictors in the final model are individual efficacy and living in Finland.

In the final set of regression models as reported in Table 5, the predictors of the collective intention to act are modelled in the same order. First, the six predictors from the social domain were tested as main effects. Collective efficacy, social norms, and social capital in the neighbourhood turn out to be significant predictors. In step 2, the main effects of the cultural proxies were added, resulting in no change of the previously described effects (other than changes in their strengths). Like in the first two blocks of regressions, living in Finland had a significant negative effect on the level of collective intentions. Also living in a rural neighbourhood resulted in weaker collective intentions to act. When the interactions are added, collective efficacy no longer is significant, but three interactions are significant: In Finland, the impact of collective efficacy is stronger (note that the main effect overall is not significant). In Italy, collective awareness is more important (again without a significant main effect). Finally, social capital has a weaker influence in Italy. All these effects remain stable when the

the structural control variables are added. Of them, living in a household with children increases collective intentions, whereas working reduces them.

Figure 2 summarizes the main findings of the analyses in one figure. Please keep in mind, that the figure only shows the significant factors from each level based on the final models (Model 4 in each case). The reported regression weights in the figure are based on the full models including the non-significant factors reported in the tables.

Tab. 3: *Details of the four nested models regressing the number of climate actions on individual and collective intentions, as well as cultural and structural factors.*

	Model 1			**Model 2**			**Model 3**			**Model 4**		
	B	beta	p	B	beta	p	B	beta	p	B	beta	p
Individual intention	**1.311**	**.388*** **	**<.001**	**.830**	**.246*** **	**<.001**	**1.063**	**.315*** **	**<.001**	**1.050**	**.311*** **	**<.001**
Collective intention	**.284**	**.069***	**.021**	.087	.021	.458	**.365**	**.088***	**.042**	**.584**	**.142*** **	**.001**
Norway (with Austria as reference)				-.217	-.009	.724	-.784	-.034	.433	-1.132	-.048	.254
Finland (with Austria as reference)				**-4.217**	**-.367*** **	**<.001**	**-4.782**	**-.416*** **	**<.001**	**-4.738**	**-.413*** **	**<.001**
Italy (with Austria as reference)				**-1.378**	**-.078** **	**.004**	-.630	-.035	.406	-.567	-.032	.452
Rural neighbourhood (with semi/urban as reference)				.379	.042	.210	**.982**	**.110***	**.024**	**1.154**	**.129** **	**.008**
More than 20 years in the neighbourhood (with less than 20 years as reference)				-.249	-.028	.350	-.202	-.023	.579	-.232	-.026	.543
Individual intention x Norway							.639	.040	.377	.666	.042	.352
Individual intention x Italy							-.428	-.046	.332	-.651	-.070	.137
Individual intention x Finland							.100	.010	.815	-.096	-.010	.819
Individual intention x rural neighbourhood							-.458	-.100#	.066	**-.535**	**-.117***	**.030**
individual intention x more than 20 years							-.001	.000	.996	.079	.019	.709
Collective intention x Norway							-.625	-.025	.392	-.879	-.035	.224
Collective intention x Italy							-.814	-.055#	.084	-.819	-.055#	.079
Collective intention x Finland							-.328	-.035	.499	-.340	-.036	.477
Collective intention x rural neighbourhood							-.085	-.013	.774	-.025	-.004	.933
Collective intention x more than 20 years							-.238	-.041	.349	-.416	-.072#	.099
Age										-.020	-.005	.882
Male (with female or diverse as reference)										**-.528**	**-.059***	**.025**
Household size										**.594**	**.168*** **	**<.001**
Number of people under 14 in the household										**-1.086**	**-.200*** **	**<.001**
Social status										-.048	-.017	.558
University degree (with all other educations and under education as reference)										**.972**	**.104*** **	**<.001**

Working (with all other options as reference)										.372	.042	.190

*** p<.001; ** p<.01; * p<.05; # p<.10

Tab. 4: *Details of the four nested models regressing individual intentions on individual level predictors, as well as cultural and structural factors.*

	Model 1			**Model 2**			**Model 3**			**Model 4**		
	B	beta	p	B	beta	p	B	beta	p	B	beta	p
Attitudes	**.341**	**.226*** **	**<.001**	**.230**	**.152*** **	**<.001**	**.251**	**.167*** **	**<.001**	**.260**	**.173*** **	**<.001**
Individual efficacy	**.700**	**.447*** **	**<.001**	**.631**	**.402*** **	**<.001**	**.757**	**.483*** **	**<.001**	**.717**	**.457*** **	**<.001**
Social norms	.033	.020	.421	.073	.044#	.060	.021	.013	.734	.014	.008	.824
Norway (with Austria as reference)				.191	.028	.235	.248	.036	.243	.131	.019	.545
Finland (with Austria as reference)				**-1.182**	**-.347*** **	**<.001**	**-1.347**	**-.396**	**<.001**	**-1.381**	**-.406*** **	**<.001**
Italy (with Austria as reference)				.117	.022	.342	.057	.011	.672	.035	.007	.795
Rural neighbourhood (with semi/urban as reference)				.085	.032	.273	.124	.047	.109	**.157**	**.059***	**.046**
More than 20 years in the neighbourhood (with less than 20 years as reference)				.116	.044#	.090	.094	.035	.172	.090	.034	.236
Attitudes x Norway							.076	.012	.724	-.013	-.002	.952
Attitudes x Italy							.191	.029	.266	.188	.029	.272
Attitudes x Finland							.172	.057	.171	.148	.049	.238
Attitudes x rural neighbourhood							-.087	-.041	.421	-.078	-.037	.466
Attitudes x more than 20 years							-.028	-.015	.765	-.041	-.021	.665
Individual efficacy x Norway							-.234	-.022	.432	-.168	-.016	.573
Individual efficacy x Italy							-.101	-.019	.481	-.105	-.020	.461
Individual efficacy x Finland							**-.521**	**-.156**	**<.001**	**-.510**	**-.153*** **	**<.001**
Individual efficacy x rural neighbourhood							-.138	-.061	.229	-.168	-.074	.144
Individual efficacy x more than 20 years							.080	.039	.422	.112	.055	.257
Social norms x Norway							-.135	-.015	.555	-.177	-.020	.437
Social norms x Italy							.206	.039	.125	.251	.047#	.061
Social norms x Finland							-.055	-.015	.657	-.032	-.009	.793

Social norms x rural neighbourhood				.089	.035	.387	.080	.031	.436
Social norms x more than 20 years				.023	.010	.782	.029	.013	.725
Age							.050	.042	.146
Male (with female or diverse as reference)							-.060	-.023	.326
Household size							-.042	-.040	.242
Number of people under 14 in the household							.053	.033	.343
Social status							**.062**	**.073*** **	**.003**
University degree (with all other educations and under education as reference)							**.153**	**.055*** **	**.032**
Working (with all other options as reference)							-.009	-.004	.898

*** p<.001; ** p<.01; * p<.05; # p<.10

Tab. 5: *Details of the four nested models regressing collective intentions on collective level predictors, as well as cultural and structural factors.*

	Model 1			**Model 2**			**Model 3**			**Model 4**		
	B	beta	p	B	beta	p	B	beta	p	B	beta	p
Identification with the neighbourhood	-.042	-.043	.161	-.030	-.030	.337	-.001	-.001	.990	.000	.000	.995
Collective efficacy	**.282**	**.236*** **	**<.001**	**.152**	**.128*** **	**<.001**	.072	.060	.291	.076	.076	.263
Collective awareness of consequences	-.062	-.062#	.066	-.005	-.005	.888	.033	.033	.527	.034	.034	.518
Social norms	**.268**	**.199*** **	**<.001**	**.253**	**.187*** **	**<.001**	**.327**	**.242*** **	**<.001**	**.311**	**.311*** **	**<.001**
Trust in neighbours to contribute to climate action	-.013	-.011	.724	-.016	-.013	.662	-.076	-.062	.183	-.072	-.072	.212
Social capital in the neighbourhood	**.394**	**.257*** **	**<.001**	**.504**	**.329*** **	**<.001**	**.751**	**.489*** **	**<.001**	**.692**	**.692*** **	**<.001**
Norway (with Austria as reference)				-.261	-.046	.074	-.177	-.031	.296	-.201	-.035	.239
Finland (with Austria as reference)				**-.791**	**-.284*** **	**<.001**	**-.653**	**-.234*** **	**<.001**	**-.688**	**-.247*** **	**<.001**
Italy (with Austria as reference)				-.116	-.027	.321	-.027	-.006	.852	-.022	-.005	.878
Rural neighbourhood (with semi/urban as reference)				**-.158**	**-.073*** **	**.033**	**-.199**	**-.092** **	**.007**	**-.189**	**-.087* **	**.012**
More than 20 years in the neighbourhood (with less than 20 years as reference)				.057	.026	.390	.080	.037	.219	.057	.026	.417

Identification x Norway			-.145	-.028	.362	-.140	-.027	.377
Identification x Italy			.058	.018	.579	.070	.021	.501
Identification x Finland			.075	.027	.460	.092	.033	.364
Identification x rural neighbourhood			-.062	-.038	.410	-.070	-.043	.351
Identification x more than 20 years			-.035	-.025	.593	-.048	-.034	.463
Collective efficacy x Norway			-.421	-.064	.107	-.460	-.070#	.077
Collective efficacy x Italy			-.072	-.018	.629	-.101	-.025	.496
Collective efficacy x Finland			**.323**	**.114****	**.008**	**.316**	**.112***	**.010**
Collective efficacy x rural neighbourhood			.086	.047	.393	.070	.039	.484
Collective efficacy x more than 20 years			-.031	-.020	.726	-.005	-.003	.957
Collective awareness x Norway			.308	.055	.146	.293	.052	.164
Collective awareness x Italy			**.396**	**.113****	**.003**	**.405**	**.115****	**.002**
Collective awareness x Finland			-.162	-.061	.119	-.159	-.060	.126
Collective awareness x rural neighbourhood			-.144	-.094#	.066	-.145	-.095#	.064
Collective awareness x more than 20 years			.066	.047	.344	.041	.029	.557
Social norms x Norway			.116	.016	.616	.123	.017	.594
Social norms x Italy			.233	.054	.106	.258	.060#	.073
Social norms x Finland			-.109	-.036	.377	-.092	-.030	.458
Social norms x rural neighbourhood			-.050	-.024	.644	-.045	-.022	.676
Social norms x more than 20 years			-.149	-.081	.100	-.144	-.078	.111
Trust in neighbours x Norway			.156	.021	.578	.062	.008	.824
Trust in neighbours x Italy			-.094	-.018	.561	-.128	-.025	.425
Trust in neighbours x Finland			-.256	-.057	.082	-.247	-.055#	.093
Trust in neighbours x rural neighbourhood			.032	.016	.707	.010	.005	.909
Trust in neighbours x more than 20 years			.099	.060	.213	.099	.060	.209
Social capital in the neighbourhood x Norway			-.417	-.050	.204	-.330	-.039	.314
Social capital in the neighbourhood x Italy			**-.620**	**-.112*****	**<.001**	**-.573**	**-.104****	**.002**
Social capital in the neighbourhood x Finland			-.226	-.062	.169	-.233	-.065	.153
Social capital in the neighbourhood x rural neighbourhood			-.263	-.111#	.066	-.218	-.092	.125

Social capital in the neighbourhood x more than 20 years			.018	.009	.876	.037	.018	.755
Age						.028	.028	.387
Male (with female or diverse as reference)						-.036	-.017	.514
Household size						-.030	-.035	.365
Number of people under 14 in the household						**.150**	**.114****	**.004**
Social status						.035	.050#	.066
University degree (with all other educations and under education as reference)						-.066	-.029	.314
Working (with all other options as reference)						**-.173**	**-.080****	**.009**

*** p<.001; ** p<.01; * p<.05; # p<.10

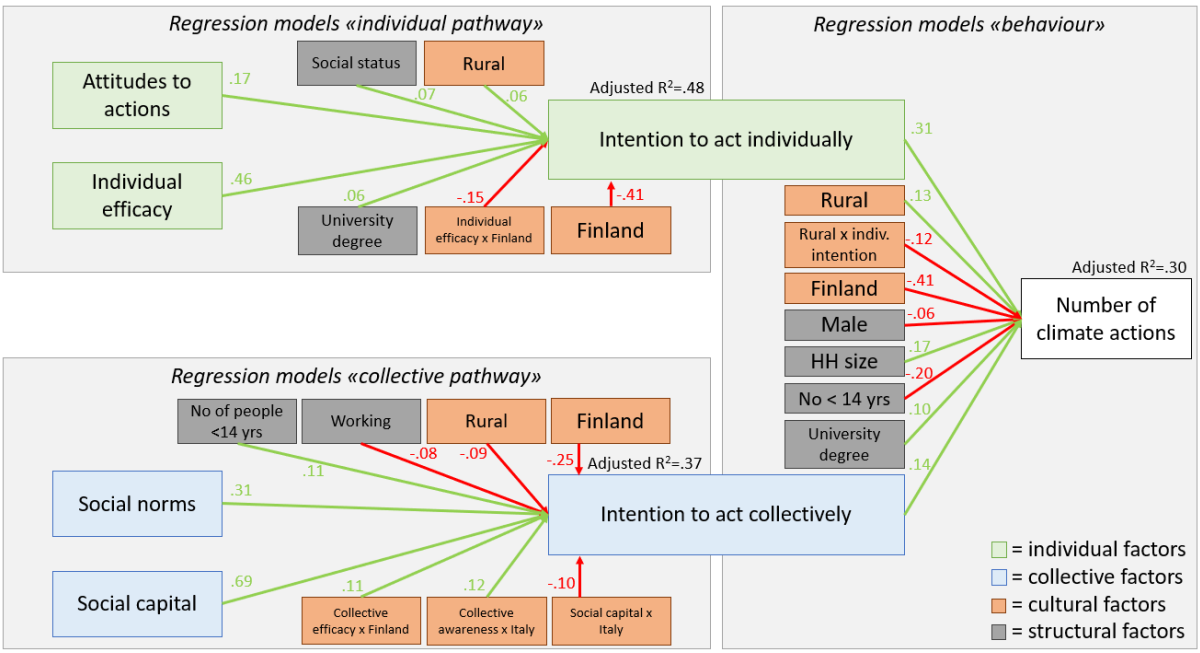

Fig. 2: *Simplified version of the resulting multi-perspective model (only significant predictors and interactions are included in the figure, but the estimates are based on the full models / Model 4, see tables 2-4; the numbers represent standardized regression weights from the full models and adjusted explained variances).*

Discussion

Our study was one of the first analysing drivers and barriers of local climate action in neighbourhoods quantitatively from a multi-perspective approach. Based on extensive qualitative research in nine neighbourhoods, we designed a questionnaire which covered potential drivers from the individual, the collective, the broader cultural, and the socio-structural level. Potentially the most relevant finding is that, indeed, factors from all four levels and their interactions were shown to be relevant for local climate action. This shows clearly that focussing on individual drivers alone will necessarily ignore relevant boundary conditions of action, but also that ignoring the individual level factors falls equally short. As such, the study also outlines a way to study the interplay of such different factors also for future work.

In general, it appears that, if studied with a survey on residents living in a neighbourhood, individual intentions to act against climate change clearly outweigh the impact of collective intentions to act. Thus, for most people we studied, climate change seems not to be a collective issue, but rather a private issue. This is also confirmed by the preceding qualitative work, were learned that climate change was usually not a topic discussed a lot in the neighbourhoods. However, drawing in results from previous studies on collective action (Bamberg et al., 2015; Rees & Bamberg, 2014), one may anticipate that the capacity and motivation to act against climate change in a neighbourhood could be strengthened if it were framed more as a collective topic. We see the significant but small effect of collective intentions rather as a potential for strengthening future collective action than as a barrier to collective action.

Confirming findings of previous research (Klöckner, 2013; Klöckner & Blöbaum, 2010), we find that individual attitudes and individual efficacy are relevant individual-level factors that could stimulate a strong individual intention to act. In our case, perceived individual efficacy is by far the strongest factor, which underlines that strengthening people's belief in the efficacy of their actions is probably the most important strategy to stimulate their willingness to act on an individual level. From a neighbourhood perspective it is also important to understand that a feeling of collective efficacy has

been shown to increase pro-environmental intentions through a positive effect on individual efficacy (Jugert et al., 2016), in other words, believing to be able to make a difference together with other people increases also one's own perceived efficacy.

Interestingly, when including collective intentions into the analysis, social norms no longer have an effect on individual intentions, as predicted in the theory of planned behaviour (Ajzen, 1991), but on the collective intention. This makes sense from a theoretical perspective: If I experience social pressure to act against climate change, this would then rather create an intention to act together with others who excerpt this pressure than alone. Neighbourhood social capital – hence the ability of a neighbourhood to work together creatively and efficiently to face challenges – is by far the strongest impact on collective intentions. This replicates findings from other research on the role of social capital in local adaptation to climate change (Adger, 2010; Aldrich, Page-Tan, & Paul, 2016; Carmen et al., 2022). It shows that social capital is not only decisive in collective action to protect a neighbourhood against the impacts of climate change, but also in mitigative action.

When zooming in more on the specific results for culture and socio-structural impacts, which are – due to their contextuality – likely not generalizable to all neighbourhoods, we find further interesting effects: We see consistently that in the Finnish neighbourhoods, collective and individual intentions to act against climate change as well as the number of actions taken are lower than in the other three countries. This is surprising, given that in a comparative European analysis, Finnish respondents were about the same level concerned about climate change as Norwegian, Austrian, and Italian respondents (Poortinga, Whitmarsh, Steg, Böhm, & Fisher, 2019). However, in the same study it was found that Finnish respondents expected less negative outcomes of climate change as compared to the other countries in our study, which might explain this effect. Furthermore, for residents in Finland the effects of individual efficacy on individual intentions were weaker, whereas the effects of collective efficacy on collective intentions were stronger than in the other countries, which points to a different cultural background, where the impression to be able to achieve something together seems to be of more importance in the Finnish neighbourhoods. Another cultural component seems to be that in Italy (as compared to the other countries) collective awareness seems to be more important for collective intentions, whereas social capital seems to be less important. This might point to that cohesion in Italian neighbourhoods is constructed in a different way, namely through a common challenge, and in a lesser degree through mutual trust. This is in line with that the Italian culture has repeatedly been described as a low-trust culture (e.g., In-Young, 2008).

Finally, we found that the following socio-structural components were relevant for taking climate actions and individual or collective intentions. In line with other studies that show a larger group of male respondents being less concerned about climate change in western societies (Bush & Clayton, 2023; Reichl et al., 2021), we also find that respondents identifying as male report fewer climate actions. High education contributed positively to individual intentions to act and the number of climate actions, which again aligns with other research (Weckroth & Ala-Mantila, 2022). Higher perceived social status also goes along with a stronger individual intention to act, confirming the findings of Reichl et al. (2021). Household size was in our study positively related to the number of climate actions, but this was counter-balanced by the number of family members below 14 years, which has a negative impact on the number of climate action. This contradicts Reichl et al. (2021), who find that the number of household members was negatively related to climate action and the number of children was irrelevant. Maybe, part of the explanation lies in that the number of children positively affects the collective intention, possibly through more interaction with other families in the neighbourhood that young families have. Working is negatively related to collective intentions to act, possibly an expression of less time spent on the neighbourhood.

Limitations

While this study is producing interesting and relevant results, it has also a number of limitations that need to be acknowledged and kept in mind when interpreting the findings. First, the study is based on a relatively small number of neighbourhoods (9) from only four countries, which means that the effects on the cultural and socio-structural level are likely very contextual and cannot be quantified. In a larger study, it would be ideal to survey people in many neighbourhoods in many countries to be able to also quantify variation on this level in a statistical multilevel analysis. Second, the neighbourhoods involved are all located in Europe (even if they span from Northern to Southern Europe). To get a more comprehensive understanding of the global potential of neighbourhood action against climate change, a similar methodology should be implemented also in non-European countries, also offering a larger variability of cultural contexts. Third, the number of people surveyed in the neighbourhoods was very different for the nine neighbourhoods, resulting in people from different neighbourhoods being unevenly represented in the results. Fourth, the cultural dimensions country and urban vs. rural are not independent of each other as both Finnish neighbourhoods were rural. This means that Finland and rural are confounded in the analyses.

Conclusions

This quantitative multi-neighbourhood study on collective climate action demonstrated that factors from the individual, collective, cultural, and socio-structural level together determine if people engage in actions to mitigate climate change. This underlines the importance of focussing on all these levels, when trying to stimulate engagement. Currently, local climate action seems to be framed as an individual behaviour, rooted mostly in individual level drivers. However, the analyses also indicate that there is a large potential for increased engagement especially in neighbourhoods with strong social capital, if social norms support climate action. Cultural differences shape how the different factors influence intentions and actions, which underlines the need to tailor intervention approaches to local cultures.

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Appendix

App. A: *List of behaviours the respondents could chose the ones they already implement (including the percentage of people who said that they do so).*

Behaviour	**Percentage doing the behaviour[a]**
Waste separation so that it can be recycled	84.3%
Reducing food waste	80.2%
Eco-driving (energy saving driving)	77.3%
Avoiding buying unnecessary products	73.2%
Replacing short-distance car trips with walking or cycling	70.7%
Avoid short flights	69.5%
Reduce energy use for heating / cooling of the home	68.2%
Repairing things as much as possible rather than buying new	66.9%
Choosing closer holiday destinations	61.0%
Using/buying second-hand items	58.2%
Purchasing eco-labelled electricity/energy	57.8%
Teleworking	50.6%
Eating a diet low on animal products	48.5%
Growing my own vegetables	42.9%
Commuting by public transport	40.7%
Commuting by car pooling	40.4%
Sign a petition for climate protection	39.0%
Eating game hunted in the area	31.3%
Eating vegetarian	15.9%
Carsharing	14.1%
Participate in a demonstration for climate protection	13.5%
Contact politicians and demand climate protection measures	13.2%
Using an electric car	9.9%
Eating vegan	5.4%

[a]Percentages are excluding people who did not answer the question and people who answered that the behaviour was not relevant for them.

App. B: *Item lists for the factor analyses and loadings of the items on their respective factors (the factor analyses were conducted per item block). Measured on 5-point Likert-type scales (e.g., 1=totally disagree, 5=totally unless indicated otherwise.*

	No Items	Items	Loading on its factor
Identification with neighbourhood	4	I am very attached to the neighbourhood	0,914
		I identify strongly with my neighbourhood	0,914
		I feel my neighbourhood is a part of me.	0,883
		Neighbourhood means a lot to me	0,870
Individual efficacy	3	I trust that I personally can contribute to a climate neutral society.	0,835
		I am certain that I personally will find ways to be climate friendly	0,835
		I think that I personally can manage to permanently lower my personal CO2-emissions.	0,823
Collective efficacy	3	I am capable to make a small but important contribution towards a climate neutral society together with other people in the neighbourhood	0,842
		I can contribute to permanently lower CO2 emissions together with other people in the neighbourhood.	0,804
		My participation is an important contribution so that we in the neighbourhood together find ways to be climate friendly.	0,788
Individual intention	1	I personally intend to contribute to local climate actions in the neighbourhood within the next year.	-
Collective intention	1	We in the neighbourhood intend to take local climate action together within the next year.	-
Attitudes	3	To act together against climate change in our neighbourhood would be useful.	0,892
		To act together against climate change in our neighbourhood would be good	0,876
		To act together against climate change in our neighbourhood would be pleasant.	0,813
Social Norms	3	Most people in the neighbourhood expect me to take action against climate change.	0,793
		Most people in the neighbourhood support it if I take action against climate change.	0,789
		Most people in the neighbourhood take action against climate change.	0,696
Collective Awareness	2	The decisions we make in the neighbourhood have consequences for climate change.	0,898
		Our behaviour in the neighbourhood has an influence on climate change	0,898
Trust in neighbours	3	My neighbours are honest with regards to climate change	0,878
		My neighbours act fair with regards to climate change	0,867
		My neighbours are competent with regards to climate change	0,707
Social capital	7	People in the neighbourhood support each other	0,768

We in the neighbourhood all draw in the same direction.	0,705
We in the neighbourhood have creative ideas.	0,692
We in the neighbourhood like to try out new things.	0,688
We in the neighbourhood know each other well.	0,637
We in the neighbourhood have a good relation to the authorities here.	0,623
We in the neighbourhood are very powerful when we work together.	0,512