



The impact of perceived moral motivation and perceived overarching identity on eco-villages' potential to promote sustainability transformation

# Annika Walkenhorst

Master Thesis - Sustainability & Psychology/ Environmental Psychology

S5420334

August 2023

Department of Psychology

University of Groningen/Leuphana University Lüneburg

Examiner/Daily supervisor: Prof. Dr. Lise Jans & Prof. Dr. Birte Siem

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate, but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

#### Abstract

This thesis addresses the societal relevance of eco-villages in promoting sustainability transformation. It investigates how moral motivation and overarching identity framing affect other's willingness to participate in eco-villages as well as their general pro-environmental intentions. A web-based experiment involving 1.065 German-speaking participants analysed the effects of the factors moral motivation (high vs. moderate) and identification (ecovillage vs. local region). As anticipated, high moral motivation framing reduced positive perceptions of eco-villagers, weakened shared identity, and lowered willingness for eco-village involvement. The relationship between moral motivation and willingness to participate was mediated by eco-village evaluation. Contrary to expectations, no significant effects of overarching local identity on sustainability transformation or interaction effects were found, potentially due to the limited impact of the local identification manipulation. The thesis emphasizes the necessity for eco-villagers and others to avoid moralizing and highlights the importance of communication strategies that avoid being perceived as morally judgmental.

*Keywords*: morality threat, overarching identity, eco-villages, sustainability transformation, do-gooder-derogation, de-evaluation

# The impact of perceived moral motivation and perceived overarching identity on ecovillages' potential to promote sustainability transformation

The progressing climate crisis is one of the greatest threats to humanity and requires a holistic sustainability transformation of society. Unfortunately, current societal changes are not sufficient to achieve the 1.5 degree target agreed at the 2015 UN Climate Change Conference (COP21) in Paris. Achieving this target (and other sustainability goals) after all will not only require political action, but also drastic behavioural changes in lifestyle (Engels et al., 2023; IPCC, 2018; United Nations, 2015). Because the greatest and most probable scope for climate mitigation action is attributed to non-governmental, civil actors (Engels et al., 2023). An example of such actors at the community level are eco-villages.

An eco-village is a "human-scale full-featured settlement in which human activities are harmlessly integrated into the natural world in a way that is supportive of healthy human development and can be successfully continued into the indefinite future (Gilman, 1991, p.10). According to the self-description of the Global Ecovillage Network (GEN), there is a wide variety of different models of eco-villages, but all involve people living together according to the guidelines of an environmentally friendly lifestyle and a sense of community (GEN Europe, 2022b). They all share a vision of contributing to a resilient and environmentally conscious society where ecovillages and community values and sustainable lifestyles are widespread (GEN Europe, 2022a). According to this vision, the ultimate goal of eco-villages is to serve as role models and promote sustainability transformation.

The goal of this master thesis is to investigate whether and under which conditions sustainable societal change can be promoted by eco-villages. To this end, it examines the impact of perceived moral motivation and perceived overarching identity on eco-villages' potential to

promote sustainability transformation. More specifically, the thesis aims to answer the question: How does the perceived moral motivation of eco-villagers and the framing of their identification affect the willingness of others to participate in the eco-village as well as their general proenvironmental intentions? To address this question, an experimental online study was conducted. Participants answered an online survey in which eco-villagers were framed as either highly or moderately morally motivated and as either identifying with their own eco-village or with a common overarching identity in form of their municipality. The findings support a hampering influence of perceived moral motivation on sustainability transformation due to de-evaluation of eco-villagers. At the same time, no evidence was found for a promoting influence of an overarching local identity on sustainability transformation.

# The relevance of moral motivation framing

Pro-environmental behaviour is often perceived as morally motivated (e. g. Fritsche et al., 2018; Steg & Nordlund, 2019). Bolderdijk and Jans (2021) are generally optimistic about the positive impact of energy communities or eco-villages on sustainability transformation, but they also mention that being perceived as morally superior by majority outgroup members can be a potential barrier for sustainable societal change.

This is usually the case when environmental harmful effects of a certain behaviour are made salient. People engaging in this behaviour then feel uncomfortable (cognitive dissonance) because they are simultaneously confronted with their actual behaviour and the awareness that they are not acting morally (Groeve & Rosenfeld, 2022). For most people, their moral identity is highly relevant, and they are particularly vulnerable to moral judgements made about them (Minson & Monin, 2012). As a result, feelings of guilt, shame and self-doubt may arise (Monin et al., 2008) leading to protective strategies such as social rejection or de-evaluation of the group

perceived as morally superior (Groeve & Rosenfeld, 2022). In the literature, the perception of morality motivated behaviour and its impact on sustainability transformation is primarily investigated using the example of vegans and vegetarians (e. g. Groeve & Rosenfeld, 2022). However, there are also indicators of the effect occurring for more general pro-environmental behaviour (Sparkman & Attari, 2020).

Therefore, it is hypothesized that when non-eco-villagers encounter eco-villagers, they are confronted with their own unsustainable lifestyle and the moral threat of how much they contribute (in direct comparison) to the collective climate crisis. Consequently, anticipated reactions could be de-evaluation and social rejection of eco-villagers. Non-eco-villagers would be less willing to become involved in the activities of the eco-village and show less proenvironmental intentions in general. Negative evaluations of eco-villagers are associated with less identification, whereas positive evaluations are part of identifying with that social group (Kurz et al., 2020). This means that perceived moral motivation also affects social identification processes which will be discussed in more detail in the following section. When non-ecovillagers perceive themselves and the eco-villagers as less similar and more distinct groups in order to protect the positive image of themselves, they perceive less shared identity. Thus, topics such as sustainability that are of great relevance to eco-villagers are likely to be less important for non-eco-villagers. This means that, according to the social identity approach, the group of non-eco-villagers is less likely to identify with the group of eco-villagers and the sustainable practices exemplified by eco-villagers are less likely to be adopted by the majority.

Moreover, social identity is usually described as one of the main drivers for sustainability behaviour (Agostini & van Zomeren, 2021; Fritsche et al., 2018; van Zomeren et al., 2008; Vesely et al., 2021). In addition, the potential of an overarching identity for converting two

groups into one belongs to the basic concepts of social psychology and has been replicated frequently (Batalha & Reynolds, 2012; Haslam et al., 2003; Loy et al., 2022; Milfont et al., 2020; Reese, 2016; Slater et al., 2016; Wenzel et al., 2007).

# The relevance of identification framing

Social identities are essential for understanding the shift towards a sustainable lifestyle (Hornung, 2022), as they can have a strong impact on promoting the respective attitudes, beliefs and behaviours for change (Fielding & Hornsey, 2016; Fritsche et al., 2018). Furthermore, social identity is commonly cited as one of the primary influence factors for pro-environmental behaviour (Agostini & van Zomeren, 2021; van Zomeren et al., 2008; Vesely et al., 2021).

The interaction of eco-villagers with non-eco-villagers can be seen as an intergroup process described by the social identity approach (Kurz et al., 2020) as eco-villagers' pro-environmental group values, norms, goals and behaviours need to be adopted by the non-eco-villagers group in order to achieve sustainability transformation (Barth et al., 2021). Thus, for a successful sustainability transformation, it is necessary to convert non-eco-villagers into eco-villagers or at least into a similar group pursuing a sustainable lifestyle (conversionary collective action context) (Kurz et al., 2020).

# How identification can hamper sustainability transformation

Different social identities play an important role in changing group membership from non-eco-villagers to eco-villagers. When the eco-village identity is salient, individuals' perceptions, thoughts and behaviours adapt to the pro-environmental group values of their eco-village. This would result in more pro-environmental behaviour within the eco-village (Barth et al., 2021). As an empirical example, identification with one's energy initiative was found to be

associated with communal sustainable behaviours directed towards the initiative's renewable energy group goals (Sloot et al., 2018).

However, according to social identity theory, as a result of stricter and more impermeable group boundaries, non-eco-villagers will start to perceive eco-villagers as different from others. Consequently, they could de-evaluate eco-villagers because other groups are often seen as less favourable than one's own group (Hornsey, 2008). This would constitute an obstacle for converting non-eco-villagers into eco-villagers and hence, hamper sustainability transformation (Kurz et al., 2020).

## How an overarching identity can promote a sustainability transformation

On the other hand, this hampering effect could be negligible if eco-villagers are perceived as part of the same group because of a shared overarching identity. According to the social identity approach, the perception of belonging to the same group can change thinking and behaviour. Through the process of identifying with an overarching group, the perception of two different groups changes from an "us. vs. them" to a "we". When others are seen as part of one's ingroup, their interests are also seen as one's own and can therefore be described as shared interests, which are then more likely to be pursued (Batalha & Reynolds, 2012). The process of an overarching identity converting two distinct groups into one is one of the fundamental concepts of social psychology and has been widely replicated (e. g., Batalha & Reynolds, 2012; Haslam et al., 2003; Loy et al., 2022; Milfont et al., 2020; Reese, 2016; Slater et al., 2016; Wenzel et al., 2007).

In the pro-environmental domain, it has been found that an overarching proenvironmental national identity can trigger a positive feedback loop that fosters sustainable norms and behaviours (Milfont et al., 2020). In addition, a global identity, referring to identification with all global citizens and their well-being is associated with the importance people attribute to the climate crisis and its mitigation as well as self-reported pro-environmental behaviour (Loy et al., 2022). When a minority group acts in a pro-environmental way, this can also influence an overarching majority group because of the shared identity: If the majority perceives minority members as similar to themselves, issues that are relevant for the minority group are perceived by the majority as relevant for themselves as well (Jans, 2021).

# The interaction of moral motivation and identification framing

Perceived moral motivation and the framing of identification can also mutually influence each other. Therefore, the framing of eco-villagers' overarching identification with their local region is hypothesized to counteract the hampering influence of high morality perception. When eco-villagers are perceived as highly morally motivated but simultaneously identify with the same overarching local identity as non-eco-villagers, they will not be de-evaluated because the effect of the overarching identity is more powerful. Non-eco-villagers will also perceive more shared identity between members of their local region and the eco-villagers. Consequently, non-eco-villagers would be more willing to participate in activities of the eco-village and show more pro-environmental intentions in general.

# Evaluation of eco-villagers and perceived shared identity as potential mediators

Evaluation of eco-villagers and perceived shared identity could explain the hypothesized effects of perceived moral motivation and framing of identification. As outlined above, a negative evaluation of a group is simultaneously associated with less identification with that group and less permeable group boundaries (Kurz et al., 2020). Thus, the social identification

processes affecting the conversion of non-eco-villagers into eco-villagers could also be influenced by de-evaluation of eco-villagers. Additionally, non-eco-villagers perceiving less shared identity between the group of eco-villagers and the common overarching group of the same local region would also hamper the conversion of non-eco-villagers into sustainable eco-villagers. Both concepts, the negative evaluation of eco-villagers and less perceived shared identity result from a high perceived moral motivation of eco-villagers. Therefore, it is hypothesized that evaluation of eco-villagers and perceived shared identity explain the predicted relationship of moral motivation and sustainability transformation measured through willingness to join activities of the eco-village and general pro-environmental intentions.

At the same time, perceived identification with an overarching local identity would lead to more perceived shared identity between the group of eco-villagers and the common overarching group of the same local region. Identifying with the overarching identity means that non-eco-villagers perceive eco-villagers as ingroup members and hence evaluate them more positively (Hornsey, 2008; Kurz et al., 2020). This would in turn promote dissolving perceived group boundaries. As a result, sustainability issues would become more important for non-eco-villagers because they are very important for the eco-villagers, a group they like and perceive as similar. Both perceptions, the evaluation of eco-villagers and shared identity would be increased by an overarching local identity but decreased by the perception of eco-villagers identifying with their own group. Thus, it is also hypothesized that evaluation of eco-villagers and perceived shared identity explain the relationship between identification framing and willingness to join activities of the eco-village as well as general pro-environmental intentions.

Taken together, according to the theoretical literature, perceived moral motivation and the framing of identification could influence whether eco-villages support or hinder

sustainability transformation due to the mediating influence of perceived shared identity and perceived moral motivation. However, experimental studies testing the inhibitory effects of morality perception and framing of identification are rare and mainly theoretical or correlational in nature. Except for Sparkman and Attari (2020) who focused on environmental advocates and residential renewable energy programs, the literature on morality threat in the pro-environmental domain is primarily dealing with vegetarians or vegans. To the author's knowledge, there is no experimental study that examines the effect of morality on the sustainable impact of ecovillages, let alone contexts that resolve a potential inhibitory influence. Therefore, these assumptions were tested empirically in the current thesis.

For the empirical testing, the following hypotheses were formulated based on the theoretical rationale outlined above:

- H1. When perceiving eco-villagers as having high moral motivations (compared to moderate) inhabitants of the overarching local region will ...
  - a. ...evaluate eco-villagers less positively.
  - b. ...perceive less shared identity with the eco-villagers.
  - c. ...be less willing to become involved in activities of the eco-village.
  - d. ...show less pro-environmental intentions.
- H2. When perceiving eco-villagers as being strongly identified with the local region (compared to the eco-village), inhabitants of the local region will...
  - a. ...evaluate eco-villagers more positively.
  - b. ...perceive more shared identity with the eco-villagers.
  - c. ...be more willing to become involved in activities of the eco-village.

- d. ...show more pro-environmental intentions.
- H3. The effects of moral motivation are moderated by identification with the local region:

  The negative effects of high moral motivation (vs. moderate) on a-d, will be countered by high identification with the local region.

H4. The effects of moral motivation, identification with the local region, and their interaction on willingness to become involved in activities of the eco-village and proenvironmental intentions, will be mediated by a) evaluation of eco-villagers and b) perceived shared identity.

# Overview of the thesis

For testing these hypotheses, an experimental online study was designed. Participants taking part in the survey read a manipulation text in which non-eco-villagers' perceptions of eco-villagers' moral motivation was manipulated at the two levels high and moderate moral motivation. In addition, non-eco-villagers' perception of eco-villagers' identification was manipulated at two levels, namely identification with the eco-village and identification with the overarching local region. Additionally, evaluation of eco-villagers as well as shared identity were tested as potential mediators explaining the underlying mechanisms of the effects from both factors on sustainability transformation. In the following section, the operationalization of the measured construct and the detailed study design are described.

#### Method

#### Participants and design

An experimental, pre-registered (https://aspredicted.org/see\_one.php) online study was conducted among a gender-balanced German-speaking sample using the Prolific panel. It was reviewed and approved by the Ethical Committee of the University of Groningen. The design of the experimental consisted of 2 (moral motivation: high vs. moderate) x 2 (identification: identification with the ecovillage vs. identification with the local region) factors. After consenting to participate and completing the questionnaire, participants were paid with an hourly rate of £8,07. A power analysis assuming a power of .80 and a small effect size (f=.1) as found in a similar study investigating identification and pro-environmental intentions (Sloot et al., 2018) resulted in a required sample size of 786.

## Data cleaning

All responses (in total 31) that were less than 80 percent completed were excluded from the dataset. Consequently, data was searched for unusual patterns with plausibility checks. Three cases were deleted because of the unplausible answer pattern of having selected the mean of every identification manipulation check item (including both levels) and showing further abnormalities in the subsequent manual screening (for more details see Appendix). One of them guessed in the comment field that the study was to "measure whether the groups were perceived as a common group or as separate ones" while at the same time answering with only the midpoint option on the respective manipulation check. In another case, the midpoint was selected for every item except for the attention checks. For the third deleted case, there was a common "TEST" left in the box and an age of 10 was given.

More cases were excluded because of missing data, implausible answer patterns, people failing the eco-village identification manipulation check or outliers (for more details see Appendix and chapter results). This resulted in a total N of 1.065 for the analysis (475 women, 569 men; 11 diverse, 2 "other" and 6 "I'd rather not say" and two missing;  $M_{\rm age}$ = 31.44; SD =10.17). Thus, the recruitment goal of 768 participants resulting from the power analysis was met. There were 269 participants in the high moral motivation and eco-village identification condition, 263 participants in the moderate moral motivation and eco-village identification condition, 267 participants in the high moral motivation and local identification condition and 266 participants in the moderate moral motivation and local identification condition. The survey language was German.

# Procedure and independent variables

After consenting to participate, the questionnaire started with exploratory moderators (three individual pro-environmental self-identity items by van der Werff et al. (2013) and one individual identification with the local region item, adapted from Postmes et al. (2013). Subsequently, participants were randomly assigned to one of the four conditions of our experimental 2 (moral motivation: moderate vs. high x 2 (identification: identification with ecovillage vs. identification with local region) design. Participants were asked to imagine that an eco-village called "Ecotopia" existed in their local region, with variations in the text depending on the condition.

#### Moral motivation manipulation

In the moderate moral motivation condition, participants read that the eco-villagers cared about the environment, whereas in the high moral motivation condition, their moral motivation and their perception of non-environmental behaviour as immoral were highlighted. For example,

the eco-villagers were described as being "on a moral mission to protect the environment" and considering this as their "moral duty". Moreover, they were framed as considering "unsustainable practices morally wrong". On the other hand, in the moderate moral motivation condition, the eco-villager were described as "caring about environmental protection" and "hoping to contribute to protect the environment with their lifestyle", claiming that they "try to live sustainably".

# Identification manipulation

In the eco-village identification condition, participants read that the eco-villagers identified highly with their own eco-village. They were described as perceiving themselves as "deeply connected to the eco-village and the people living there" and as a "unique community". Being unique means being different from others as outlined in the social identity approach (Hornsey, 2008). In the overarching local identification condition, eco-villagers were framed as identifying with their "unique municipality" (as the participants were asked to imagine an eco-village in their municipality). Thus, the eco-villagers were pictured as "deeply connected" to their municipality and as being open "to share experience of living sustainably with fellow municipality members" (For the full manipulation texts see the Appendix.). The questionnaire then continued with the rest of the measures (manipulation check morality perception, dependent variables, mediators, manipulation checks identification, a field to guess the study target and demographics) in the same way.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> There were other items and scales in the questionnaire that explored shared identity, as well as an additional mediator called environmental group identity. However, as well as the exploratory moderator "individual pro-environmental self-identity", they won't be analysed here as this would go beyond the scope of this thesis.

#### Measures

Items were answered on a 7-point-likert scale (1 = completely disagree; 7 = completely agree), if not specified differently. For descriptive statistics and correlations see Table 1.

# Exploratory moderator

**Identification with the local region.** Identification with the local region was measured by the item adapted from Postmes et al. (2013). The item reads "I identify with the inhabitants of my municipality".

# Dependent variables

Pro-environmental intentions. General pro-environmental intentions were measured with six items all beginning with: "In the future I would like to..." Four of them derive from Sloot et al. (2018): "...reduce my car use, ...buy environmentally friendly products, ...donate to environmental organisations, use renewable energy sources in household". In addition, two self-made items tried to match the specific behaviours of the eco-villagers described in the manipulation text: "... grow my own vegetables, organise educational events for teaching a sustainable lifestyle ".

Willingness to participate in the eco-village. Six self-made item asked participants about different levels of their intention to become involved with the eco-village, starting with the lowest and ending with the highest level of engagement: "I want to learn more about the eco-village", "I want to visit the eco-village", "I want to participate in activities organized by the eco-village", "I want to become involved in the eco-village (investing time, money etc.)", "I am interested in joining the eco-village" and "I want to live at the eco-village". The six different

levels were used in order to get some variance in the data (avoiding the likely floor effect that only very few people would indicate their intention to into the eco-village).

#### **Mediators**

Evaluation of eco-villagers. The scale evaluation of eco-villagers was measured on a bipolar scale from -3 to 3 using four items. Three of them were taken from Liu et al. (2020): "I think that such a community energy initiative in my local area would be very... unacceptable/acceptable, bad/good or negative/positive". One item was adapted from Parker and Janoff-Bulman's feeling thermometer (2013), asking participants how warm or cold they would experience the inhabitants of "Ecotopia". The measurement units were adapted to the bipolar described above instead of using the original scale from 0 to 100.

**Shared Identity.** To measure the shared identity between the eco-villagers and the municipality, three self-created items were used asking about perceived similarities and differences between the two groups<sup>2</sup>. An example item is: "The ecovillage members and the municipality members belong to the same group". The scale was adapted from the literature and modified. However, the source of the original items cannot be found anymore.

#### Manipulation checks

**Morality perception of eco-villagers.** Morality perception the eco-villagers were measured with three self-created items to check the effectiveness of perceived moral manipulation. The items were rated on a bipolar scale from -3 to -3. Participants were asked:

<sup>&</sup>lt;sup>2</sup> By accident, shared identity items were measured twice. However, for the main analysis, the shared identity items measured first in the questionnaire were used.

"How would you describe the eco-villagers?" The end of the scale was labelled "moral/immoral, judgmental/non-judgmental and environmentally friendly/unfriendly".

**Identifications of the eco-villagers.** Four self-made items checked whether participants perceived the eco-villagers as identifying highly with the eco-village or with their local region. Examples items are: "The inhabitants of the ecovillage perceive themselves and the community members as similar" and "The inhabitants of the ecovillage see themselves as a unique group that is different from others."

# **Scale description**

**Tabel 1**Descriptive statistics, reliability values and correlations

Scales	М	SD	Reliability.	1.	2.	3.	4.	5.	
Main variables									
1.Pro-environmental intentions	4.79	1.08	$\alpha = .75$	1	.65***	.43***	.06*	.1**	
2. Willingness to participate	4.33	1.44	$\alpha$ =.93	.65***	1	.61***	.05	.12**	
3.Evaluation of eco-villagers	1.37	1.01	$\alpha$ =.89	.43***	.61***	1	.14***	.19**	
4.Shared identity (1)	4.12	1.27	$\alpha$ =.82	.06*	.05	.14***	1	.73**	
5.Shared identity (2)	3.94	1.23	$\alpha$ =.79	.1**	.12***	.19***	.73***	1	
Manipulation checks									
1.Morality motivation	1.83	0.68	$\alpha$ =.12						
2.Eco-village identification	5.78	0.92	$\rho = .45$						
3.Local identification	3.88	1.26	$\rho = .80$						

*Note.* \*\*\*p < .001; \*\*p < .01; \*p < .05. Scales were measured on a 7-point Likert scale except for "evaluation of eco-villagers" which was measured on a bipolar scale from -3 to 3. The reliabilities of the two identification manipulation check scales are spearman-brown correlation instead of Cronbach's alpha because they only consist of two items.

Reliabilities of the main variables were all acceptable or higher (according to Blanz, 2021) (see Table 1). Accidently, the shared identity items were included twice in the questionnaire. While the first measurement in the questionnaire (shared identity 1) had a high reliability, Cronbach's alpha of the second measurement was only acceptable (see Table 1). A paired t-test revealed on average, participant scored significantly higher at the first shared identity scale (M = 4.12, SD = 1.27) than on the second measurement (M = 3.94, SD = 1.23), t(1065 = 6.522), p < .001. Because the first measurement (shared identity 1) is probably less biased by other influences, analyses were conducted with this measurement. However, the analysis was repeated exploratory with the second measurement. An additional analysis of the exploratory moderator individual identification with the local region was conducted in order to find explanations for the non-existent effects of the overarching identity factor. It revealed that the mean of the exploratory moderator individual identification with the local region was below the midpoint of the scale (M = 3.77, SD = 1.41).

#### Results

# **Manipulation check**

In the following, the manipulation checks for the two factors of perceived moral motivation (moderate vs. high) and framed identification (eco-village vs. local region) are assessed using a MANOVA (Multivariate Analysis Of Variance) in order to evaluate whether the experimental manipulation had the desired effects on participants.

According to the pre-registration, cases scoring lower than the midpoint of the scale in the respective manipulation should be deleted from the analysis. However, this was only implemented in the eco-village manipulation control scale for 12 cases. The scale morality manipulation was split into its individual items because of its unsatisfying reliability. The item "How would you describe the eco-villagers? Non- judgmental/judgmental" was used for the manipulation check because according to the literature, the anticipated de-evaluation effect of the morality manipulation derives as a protective strategy to overcome the fear of being judged (e.g., Groeve & Rosenfeld, 2022). Moreover, according to the pre-registration, 226 cases should have been removed from the data set because they did not fulfil the criteria passing the manipulation check meaning scoring above the midpoint of the scale. However, this high number indicates a flawed manipulation rather than 226 participants who did not understand the local identification manipulation check. Therefore, the local identification manipulation check was repeated in an exploratory way without the 226 participants. Because of the exploratory character of both, the morality motivation check and the local identification manipulation check, no cases were excluded from these scales, although this was outlined in the pre-registration.

 Table 2

 Results for the manipulation check

Factor	Dependent Variable	F(1,1061)	p	$\eta_p^2$
Moral Motivation	Morality manipulation check (judgemental)	160.5	.000	.131
	Ecovillage manipulation check	8.88	.003	.008
	Local identification manipulation check	9,04	.003	.008
Identificationation	Morality manipulation check (judgemental)	0.37	.545	.000
	Ecovillage manipulation check	6.00	.014	.006
	Local identification manipulation check	7.27	.007	.007
Moral Motivation *	Morality manipulation check (judgemental)	0.02	.892	.000
Identification	Ecovillage manipulation check	0.04	.849	.000
	Local identification manipulation check	2.92	.088	.003

*Note*. For the morality motivation manipulation check, only the single item "non judgemental/judgemental" was used.

The univariate results show that the morality manipulation worked because eco-villagers were rated as significantly more judgemental in the high morality condition (see Table 2). The analysis was repeated in an exploratory way with different variations such as the other individual items from the scale (unmoral/moral as well as environmentally friendly/unfriendly) and a scale consisting of the two items with the highest reliability (unmoral/moral and environmentally friendly/unfriendly, spearman-brown correlation  $\rho$  =.6). However, an additional significant difference for the moral motivation manipulation was found only for the individual morality check item there "unmoral/moral" F(1, 1061) = 5.534, p < .019,  $\eta_p^2 = .005$ . Still, this effect size is very small. In summary, this means that eco-villagers were only rated as significantly more moral in the high morality partial condition when either the individual non-judgemental/judgemental item or the unmoral/moral item was used. It is interesting to see that in

the high morality condition, participants also rated the eco-villagers as identifying stronger with their own eco-village group and less as a group identifying with their overarching local identity in form of the municipality than in the moderate morality condition. However, these effects are again very small so they might have been occurred only due to the high sample size (see Table 2).

Participants in the local identification condition rated eco-villagers as identifying significantly more with municipality members than participants in the eco-village identification condition (see Table 2). Moreover, participants in the eco-village identification condition rated the eco-villagers as identifying more with their own eco-villages than participants in the local identification condition (see Table 2). Thus, both manipulation checks seemed to have worked. However, once again the effect sizes were very small. When conducting the same analysis with only those participants who passed the manipulation check according to the pre-registration, the effect sizes for the factor identification increased for both, the eco-village identification check and the local identification check (see Table 3). Therefore, the results suggest that that the identification manipulations worked but were not strong enough. There was no evidence for an interaction effect in any of the manipulation check analyses.

Table 3

Results for the manipulation check only including people who passed the local identification manipulation check

Factor	Dependent Variable	F(1,835)	p	$\eta_p^2$
Morality Motivation	Morality manipulation check (judgemental)	131.34	.000	.136
	Ecovillage manipulation check	11.66	.001	.014
	Mean.LocalID	7.67	.006	.009
Identification	Morality manipulation check (judgemental)	4.12	.043	.005
	Ecovillage manipulation check	23.18	.000	.027
	Mean.LocalID	189.59	.000	.185
Moral Motivation *	Morality manipulation check (judgemental)	0.39	.534	.000
Identification	Ecovillage manipulation check	0.33	.565	.000
	Mean.LocalID	3.36	.067	.004

*Note*. For the morality motivation manipulation check, only the single item "non judgemental/judgemental" was used.

# **Assumption Testing**

As a next step, assumptions for conducting a MANOVA were tested. The assumptions of no multicollinearity, linearity, homogeneity of error variances and homogeneity of covariances were not violated. The assumption of normality seemed to be violated, however, the sample size was very large the tests are not very valid. Moreover, the MANOVA analysis is robust against violation of the normality assumption (Finch, 2005). Therefore, the analysis was conducted as planned.<sup>3</sup> For a more detailed description of the assumption testing see the Appendix.

#### Outlier

There was one case with an extreme univariate outlier (more than three times the interquartile distance) which was excluded from the analysis. Four multivariate outliers were found, as assessed by Mahalanobi's distance (p > .001) with  $D_{\text{critical}} = 18.467$  and removed from the analysis. Outlier analysis and exclusion were slightly different than indicated in the preregistration because there, multivariate outliers were not mentioned. However, for transparency reasons, the MANOVA results will be reported with and without the outliers.

<sup>&</sup>lt;sup>3</sup> Although a non-parametric analysis like the multivariate Kruskal-Wallis-Test would be better suited for the current research, this statistical technique is not part of the curriculum. Therefore, a multivariate MANOVA was conducted. Results must be interpreted with caution.

# Descriptive Statistics

**Tabel 4**Descriptive statistics for the four manipulation conditions

	High n	noral	Moderate	moral	High 1	noral	Moderat	e moral	
	motivation	n & eco-	motivation	& eco-	motiva	tion &	motiva	tion &	
	village ID		village	village ID		local ID		local ID	
	M	SD	M	SD	M	SD	M	SD	
Pro-environmental	4.78	1.07	4.82	1.12	4.78	1.01	4.79	1.19	
intention									
Willingness to	4.08	1.48	4.48	1.42	4.35	1.35	4.42	1.47	
participate									
Evaluation	1.11	1.04	1.55	.89	1.22	.99	1.55	1.03	
Shared Identity (1)	3.94	1.31	4.09	1.31	4.08	1.24	4.38	1.21	

In Table 4 the means of the four different manipulation conditions are displayed. Generally, the means of the moderate moral motivation conditions are higher than the ones for the high moral motivation condition which would be in line with H1. However, the means of the local identification condition are not always higher than the means in the respective eco-village identification condition as H2 would have predicted (Table 4).

# Do moral motivation and identification manipulations affect the dependent variables?

In order to find out whether and how the two factors morality motivation and identification influence the dependent variables in a statistically significant way, a MANOVA was conducted.

Tabel 5
Univariate results of ANOVA analyses

Factor	Dependent Variable	F(1, 1061)	p	$\eta_p^2$
Morallity Motivation	Pro-environmental intention	0.17	.677	.000
	Willingness to participate	7.2	.007	.007
	Evaluation of eco-villagers	40.53	.000	.037
	Shared identity (1)	8.25	.004	.008
Identification	Pro-environmental intention	0.07	.790	.000
	Willingness to participate	1.42	.234	.001
	Evaluation of eco-villagers	0.65	.421	.001
	Shared identity (1)	7.52	.006	.007
Moral motivation * Identification	Pro-environmental intention	0.06	.810	.000
	Willingness to participate	3.6	.058	.003
	Evaluation of eco-villagers	0.77	.380	.001
	Shared identity (1)	.92	.337	.001

Post-hoc univariate ANOVAs were conducted for every factor and dependent variable (see Table 5). Results show that, in line with H1a-c, when the eco-village was framed as highly moral, participants evaluated the eco-village significantly less positively, perceived significantly less shared identity, and were significantly less willing to join activities of the eco-villages, than when the eco-village was framed as moderately moral (see Table 5). However, effect sizes are small (see Table 5) and, unexpectedly, participants did not show significantly less proenvironmental intentions when the eco-villagers were framed as highly moral instead of moderately moral.

Identification framing had a significant effect on shared identity. In line with H2b, when eco-villagers were framed as identifying with their local region, participants perceived significantly more shared identity than when the eco-villagers were framed as identifying with their eco-village, although the effect size is very small (see Table 5). However, contrary to expectations, there was no effect of identification on pro-environmental intention, willingness to participate and evaluation of eco-villagers (see Table 5).

The local identity manipulation failed to counteract the negative effects from the high morality manipulations. There was also no significant interaction between moral and identification framing on any of the outcomes.

In conclusion, the results show that perceived high moral motivation significantly decreased evaluation of eco-villager, shared identity, and willingness to participate in activities of the eco-villages. As hypothesized, he local identification manipulations significantly increased shared identity, but contrary to H2 did not increase sustainability transformation variables or evaluation of eco-villagers. Moreover, no interaction effect for the two factors for any of the outcome variables was found.

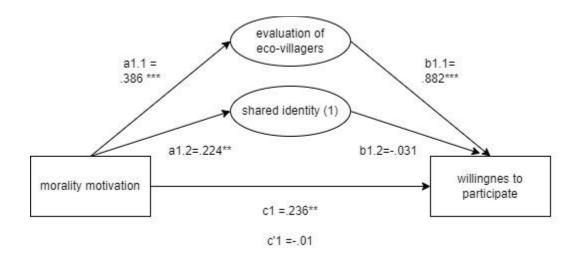
# **Mediation analysis**

To figure out whether evaluation of eco-villagers and shared identity (1) explain the relationships of morality motivation and willingness to participate as well as morality motivation and pro-environmental intention, two parallel mediation analyses were conducted. Moreover, to find out whether evaluation of eco-villagers and shared identity (1) explain the relationship between local identification and willingness to participate as well as the relationship between local identification and pro-environmental intention, two further parallel mediation analyses were conducted. Because there was no interaction effect for any of the dependent variables, local identity is not investigated as a moderator.

# Moral motivation and willingness to participate

Figure 1

Mediation model 1 with the relationship between moral motivation framing and willingness to participate



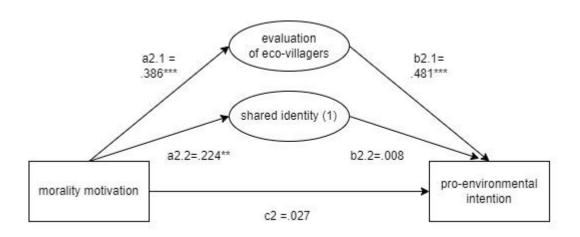
*Note.* Regression weights. \*\*\*p < .001; \*\* p < .01; \*p < .05

A parallel mediation analysis was conducted to determine whether moral motivation predicts willingness to participate in the eco-village and whether the direct path would be mediated by evaluation of eco-villagers and shared identity (1) (see Figure 1). In line with H4a, it was revealed that the relationship between moral motivation and willingness to join was fully mediated by evaluation of eco-villagers (total indirect effect: B = .341, 95%-CI [.233, 447], but not by shared identity (1) (total indirect effect: B = -.007, 95%-CI [-.023, .006]. Thus, evaluation of eco-villagers is a mediator for the relationship between moral motivation and willingness to participate while shared identity is not.

# Moral motivation and pro-environmental intention

Figure 2

Mediation model 2 with the relationship between moral motivation framing and proenvironmental intention



*Note.* Regression weights. \*\*\*p < .001; \*\* p < .01; \*p < .05

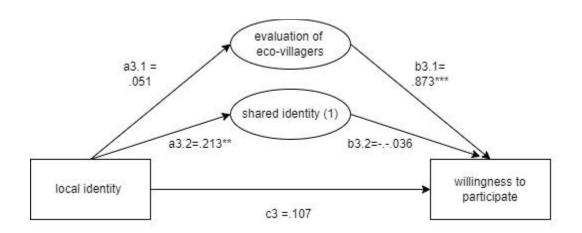
A second parallel mediation analysis was conducted to reveal whether moral motivation predicts pro-environmental intention to participate in eco-villages and whether the direct path

would be mediated by evaluation of eco-villagers and shared identity (see Figure 2). The question of whether evaluation of eco-villagers mediated the relationship between moral motivation and pro-environmental intention cannot be answered clearly because there is an ongoing debate in the literature whether calling a variable a mediator with a significant total indirect effect (B = -.005, 95%-CI [.118, .228] and a non-significant total effect (B = .028, 95%-CI [-.103, .158]) (Zhao et al., 2010). Shared identity did not mediate the relationship between moral motivation and pro-environmental intention (indirect effect: B=002, 95%-CI [-.011, .015] as predicted by H4b.

# Identification and willingness to participate

Figure 3

Mediation model 3 with the relationship between local identification framing and willingness to participate



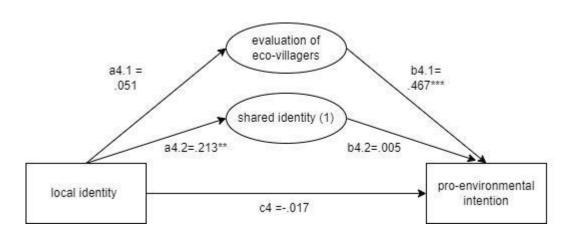
*Note.* Regression weights. \*\*\*p < .001; \*\* p < .01; \*p < .05

A third parallel mediation analysis was conducted to reveal whether local identity predicts willingness to participate in the eco-village and whether the direct path would be mediated by evaluation of eco-villagers and shared identity. The relationship was neither mediated by evaluation of eco-villagers (indirect effect: B=.045, 95%-CI [-.059, .152] nor by shared identity (indirect effect: B=-.008, 95%-CI [-.024, .005].

# Identification and pro-environmental intention

Figure 4

Mediation model 4 with relationship between local identification framing and proenvironmental intention



*Note.* Regression weights. \*\*\*p < .001; \*\* p < .01; \*p < .05

A fourth parallel mediation analysis was conducted to reveal whether local identity predicts pro-environmental intention and whether the direct path would be mediated by evaluation of eco-villagers and shared identity. The relationship was neither mediated by

evaluation of eco-villagers (total indirect effect: B=.024, 95%-CI [-.032, .080] nor by shared identity (total indirect effect: B=.001, 95%-CI [-.011, .014].

In summary, the evaluation of eco-villagers plays an important role in explaining the relationship between moral motivation framing and sustainability transformation variables. In the statistical literature (Zhao et al., 2010), it is debated whether a mediator may be called such if the direct effect, in this case the relationship between moral motivation framing and general proenvironmental intentions, is not significant but only the indirect effect. However, together with the fact that evaluation of eco-villagers fully mediates the relationship between moral motivation framing and willingness to participate in activities of the eco-villages, this indicates that this variable represents the underlying inhibiting mechanism between moral motivation framing and sustainability transformation. Nevertheless, shared identity was not found to be a mediator for any of the investigated relationships and evaluation of eco-villagers did not mediate the relationship between local identification framing and any of the sustainability transformation variables.

# Exploratory analyses

Since the MANOVA analysis showed a lack of effects for the factor identification and the interaction of both factors, it was repeated three times. In this way, it could be investigated whether the absence of effects was due to flawed measurements or the exclusion and inclusion of certain cases. As these were additional and unplanned analyses, they are exploratory in nature.

MANOVA with shared identity (2) items. In the first additional analysis it was tested whether similar findings on shared identity would be found when the second measure of shared identity was used. The effect of moral framing uphold, but the effect of identification framing on

shared identity was now non-significant F(1, 1061) = 3.186, p = .075,  $\eta_p^2 = .003$ ), and there was again no interaction effect.

**MANOVA analysis** – **exclusion of failed manipulation checks.** The second additional analysis excluded the cases scoring under the midpoint 4 of the local identity manipulation check scale in the local identity condition. In contrast to the original analysis, the effect of moral motivation framing on shared identity disappeared F(1, 835) = 3.477, p=.063,  $\eta_p^2=.004$  but effects of identification framing became significant on evaluation of eco-villagers F(1, 835)=14.362, p<.001,  $\eta_p^2=.017$ ; willingness to participate F(1, 835)=17.724, p<.001,  $\eta_p^2=.021$  and pro-environmental intentions F(1, 835)=6.942, p=.009,  $\eta_p^2=.008$ . Moreover, the effect of identification framing on shared identity was clearly bigger when compared to the original analysis. F(1, 835)=45.018, p<.001,  $\eta_p^2=.051$  and there was again no interaction effect.

**MANOVA analysis** – **with outliers.** For transparency reasons, results of the third additional analysis were also reported without removing the outliers. No remarkable differences regarding the inference statistical results in comparison to the original analysis were found and there was again no interaction effect.

In conclusion, the only additional analysis that provided evidence for more existing effects of the factor identification was that which excluded all cases failing the local identification manipulation scale. However, it is also clear that there will be always more effects by a certain factor when many low-scoring cases are systematically removed from one level of that factor. Thus, the results of this analysis are not particularly valid. Instead, the fact that 226 participants failed the manipulation check rather suggests that the manipulation did not work properly.

#### **Discussion**

# **Summary of findings**

The aim of this thesis was to examine whether and how the two factors moral motivation framing and identification framing influence sustainability transformation. Generally, it could be shown that perceiving eco-villagers as highly morally motivated can be a barrier for sustainability transformation and that this process could be explained by a deteriorated evaluation of eco-villagers. However, no evidence was found to support the role of a local, overarching identity as a promoting factor for sustainability. It could neither be shown that an overarching identity counteracts the negative influence of perceived moral motivation.

In line with H1a-c, it could be shown that when eco-villagers were perceived as highly morally motivated, they were evaluated less positively. Non-eco-villagers perceived more shared identity and showed more willingness to participate in activities of the eco-village (H1a-c). However, a relationship between moral motivation and pro-environmental intentions could only by revealed by the indirect path of the mediation analysis via the potential mediator evaluation of eco-villagers (H1d). When eco-villagers were framed as identifying with the overarching local region rather than their own eco-village, non-eco-villagers perceived more shared identity (H2b). But contrary to H2a, c and d, eco-villagers were not evaluated better nor did non-eco-villagers show more willingness to join or pro-environmental intentions. There was no evidence found to support the hypothesis that the negative influences of high morality motivation could be counteracted by identifying with the local region (H3) nor that there was an interaction effect on any of the outcomes measured.

Furthermore, the process of eco-villagers being evaluated more positively could explain the associated positive impact on willingness to participate in the eco-villages while it is debatable whether it can also explain a positive impact on general pro-environmental intentions (Zhao et al., 2010). However, evaluation of eco-villagers could not explain any of the relationships between the overarching local identity and both sustainability transformation variables, willingness to participate in the eco-village and pro-environmental intentions (H4a). Moreover, no mediating effect of shared identity was revealed in any of the for any of the hypothesized relationships in H4b.

# Moral motivation framing

The most clear and consistent findings are the effects of morality framing, especially its negative influence on non-eco-villager's willingness to participate in activities of the eco-village. This thesis was able to show that a high perceived moral motivation decreased non-eco-villagers' willingness to participate in activities of the eco-villages (H1c). This is consistent with existing literature, suggesting that perceived moral motivation can inhibit the conversion of people who do not care about the environment into people who identify with pro-environmental values (Kurz et al., 2020). However, perceived moral motivation did hardly influence general pro-environmental intentions. A relationship between moral motivation and pro-environmental intentions could only be revealed by the indirect path of the mediation analysis via the potential mediator evaluation of eco-villagers (H1d). This could be the case because the conversion process investigated is a very specific effect: When a particular eco-village is perceived as having a high moral motivation, this seems to affect only the intentions related to the respective eco-village, but not the general pro-environmental intentions. On the one hand, this can be considered good news, because the undesirable repercussions are restricted to specific persons or

institutions and do not affect general pro-environmental intentions. On the other hand, the specific effect could imply that the influence eco-villages can have on sustainability transformation is smaller and less generalizable as assumed. According to this interpretation, eco-villagers would only promote sustainability transformation by attracting more members or visitors but not through their influence as role models.

In addition, evaluation of eco-villagers plays an important role in explaining how perceived high moral motivation can hinder sustainability transformation. Evaluation of eco-villagers explains the effect between moral motivation and willingness to participate in the eco-village. However, the mechanisms by which high moral motivation affects pro-environmental intentions are less clear because there is an ongoing debate in the literature as to whether a construct without a significant overall effect should be called a mediator (H4a) (Zhao et al., 2010). Nevertheless, taking together the results from both mediation analyses, evaluation seems to be an important concept when trying to explain the mechanisms underlying the inhibitory effects of moral motivation on sustainability transformation.

Furthermore, the results of the current study demonstrate that de-evaluation of groups due to perceived high moral motivation (or "do-gooder derogation") can also take place in the context of eco-villages. Thus, this thesis replicated the de-valuation effect of others due to a perceived moral threat using the example of an environmentally friendly behaviour different than veganism/vegetarianism. According to the literature, de-evaluating members of a group is a protective strategy because people tend to feel threatened by the moral behaviour of others (Groeve & Rosenfeld, 2022). According to the manipulation check, the strongest effect that that eco-villagers were rated as more judgmental in the high morality condition. Thus, results of this study indicate that eco-villagers' exemplary conduct might make non-eco-villagers defensive

about their own flaws. In this way, the current study empirically shows the detrimental effect that a perceived high moral motivation of a minority might have on sustainability transformation.

This supports the argument by (Kurz et al., 2020) that de-valuation or "do-gooder derogation" is a universal effect valid for a wide range of sustainable behaviours. Therefore, future research should investigate the effect for various contexts.

Moreover, it has been shown that people are particularly susceptible to moral judgements (Minson & Monin, 2012). The vulnerability to judgments was reflected in the manipulation check of this study, according to which eco-villagers described as highly morally motivated were rated as more judgemental than eco-villagers described as moderately morally motivated. This is in line with the literature suggesting that the fear of being judged can actually result in deevaluation of the group imposing the moral threat (Groeve & Rosenfeld, 2022; Minson & Monin, 2012). This would mean that the "judgment" part of moral judgment is the important factor actually causing the effects. Future studies should investigate this further.

#### Identification framing and moderation effect

The findings regarding identification framing were less clear than the results for moral motivation framing. Perceiving eco-villagers as identifying with their local region has been found to increase only the perception of shared identity: As predicted by H2b, when eco-villagers were perceived as identifying with the overarching local group, boundaries were perceived as weaker than when eco-villagers were perceived as identifying with their own eco-village. However, contrary to H2a, there was no significant increase regarding the positive evaluation of eco-villagers. Contrary to H2c and d, there was also no increase in non-eco-villager's willingness to participate in activities of the eco-village and their pro-environmental intentions. This does not necessarily mean these hypotheses were wrong. In the general

introduction to every manipulation text, participants were asked: "Please imagine the following scenario about an eco-village in your municipality." The subsequent identification framing did not refer explicitly to an overarching identity shared by the non-eco-villagers. Instead, eco-villagers were framed as identifying with their municipality without giving it an explicit name. Participants had to keep in mind that they were imagining the eco-village as part of their own municipality and that the municipality members mentioned in the manipulation text belonged to their own group. Thus, this implicit and rather unobtrusive manipulation may have been too weak and does not seem to have worked out as planned.

According to the manipulation checks, 226 people in the local identity group scored below the mean of the scale. This could indicate that the manipulation was not strong enough. The effect sizes for the corresponding t-tests also support this assumption: Effect size for the effect of the moral motivation manipulation on the moral judgement item was much stronger than the one for the local identification manipulation on the local identity manipulation check scale. Looking only at those cases that interpreted the local identification manipulation correctly and passed the manipulation check, led to more significant findings and bigger effect sizes of the local identification framing in line with H2: The effect size for the increase in perceived shared identity, when eco-villagers were described as identifying with the local region, changed from negligible to small. Moreover, participants also evaluated eco-villagers significantly more positively, showed significantly more willingness to participate in activities of the eco-village and revealed significantly more pro-environmental intentions. Still, those effects are small to negligible in their size and thus the practical relevance is in doubt. However, contrary to the original analysis, these results support H2a-d. Therefore, the assumption that the manipulation

check was too weak is supported. This could imply that the local identification framing may work as predicted when the manipulation is strong enough.

Moreover, there was no evidence to support the hypothesis that the negative influences of high moral motivation could be counteracted by identifying with the local region (H3). The lack of effects due to the weak overarching local identity manipulation could also be the reason why the hypothesized moderation effect was not detected in the analysis. It is also possible that both, a local identification effect and a moderation effect, simply do not exist. This would imply that a shared and overarching identity is not as important for promoting a sustainable transformation as presumed in H2 and H3. However, this does not seem plausible because in the literature, social identity is usually described as one of the main drivers for sustainability behaviour (Agostini & van Zomeren, 2021; Fritsche et al., 2018; van Zomeren et al., 2008; Vesely et al., 2021). In addition, the potential of an overarching identity for converting two groups into one belongs to the basic concepts of social psychology and has been replicated frequently (e. g. (Batalha & Reynolds, 2012; Haslam et al., 2003; Loy et al., 2022; Milfont et al., 2020; Reese, 2016; Slater et al., 2016; Wenzel et al., 2007).

However, none of the example papers reviewed in the introduction used a municipality as an overarching identity level (Jans, 2021; Loy et al., 2022; Milfont et al., 2020). Therefore, it is possible that people in general do not identify strongly with a group identity in the form of a municipality. An indicator supporting this assumption is that the mean of the exploratory moderator individual identification with the local region is below the midpoint of the scale. Against this backdrop, future research should investigate the effects of a different overarching identity at another level. An example could be the national level as investigated by Milfont et al.

(2020). Another way to strengthen the manipulation of overarching local identity may be to address the explicit name of a local region.

#### "Failed" mediators

The construct of shared identity was not found to be a mediator for any of the investigated relationships. For the framing of moral motivation, this could mean that the process of devaluation that hinders sustainability transformation is a process that affects the individual rather than the group. This would be in line with the literature usually investigating moral threats at the individual level (Groeve & Rosenfeld, 2022; Minson & Monin, 2012). However, this assumption is contradicted by the finding that participants perceived less shared identity with the eco-villagers when they were described as highly morally motivated (H1b). This could indicate that perceiving eco-villagers as highly morally people leads to the perception of them as a distinct group and thus to higher group boundaries. Thus, the finding that de-evaluation of ecovillagers may influence group processes is an important contribution to the existing literature. However, the effect size is very small and, as mentioned above, shared identity cannot explain the effects of moral motivation on sustainability transformation (H4b). Nevertheless, both results are not necessarily contradicting each other when taking into account that the shared identity measurement might have been flawed. If the variable shared identity (1) did only measure part of the construct, this could explain why an increase, but no mediating effect was found. Unfortunately, a pre-test or validation of scales was not feasible due to the time framing of this thesis. Therefore, future research should use validated scales and items asking more explicitly about the perception of group boundaries and emotions which have been described as fundamental components of the shared identification process (Kurz et al., 2020).

Shared identity was also not found to mediate the relationship between the overarching local identification framing and the variables willingness to participate in the eco-village and pro-environmental intentions. However, the overarching local identification had the strongest effect on shared identity compared to the other dependent variables. As mentioned above, the manipulation of the overarching local identification probably did not work as intended. Shared identity was hypothesized to cause a potential change in non-eco-villager's willingness to participate in the eco-village and pro-environmental intentions in general. Therefore, an increase in shared identity was predicted to happen before the increase in the other two sustainability transformation variables. Because shared identity is more directly influenced by the overarching local identification manipulation, a weak manipulation might only show effects on shared identity, but not on willingness to participate and pro-environmental intentions. These the results support once again that the manipulation may have been not strong enough. This would also be in line with the existing literature, where shared identity is widely associated with dissolving group boundaries and a switch to the other group's goals and behaviour (Batalha & Reynolds, 2012; Jans, 2021; Loy et al., 2022).

Moreover, evaluation of eco-villagers was not affected by the overarching local identification manipulation and did not mediate the relationship between the manipulation and any of the sustainability transformation variables. This could also be explained by the fact that the manipulation was not strong enough and that non-eco-villagers did not really identify with their municipality. However, it is unlikely that there is no effect resulting from ingroup favouritism (the fact that members of their own group are evaluated better than other people) because this is a consistent basic and universal finding replicated among different cultures (e. g.

Buhl, 1999; Fischer & Derham, 2016). To clarify the open questions, future research should replicate the study while using a stronger overarching local identification manipulation.

#### Limitations

To the author's knowledge, this is the first study investigating morality and identification framing of eco-villages. It has a hypothetical character which limits its validity and the practical meaning. Also, the found effect sizes were low in general.

When the MANOVA was conducted without the 226 cases failing the local manipulation check, participants did not perceive less shared identity due to eco-villagers being described as highly moral. This alternation between significant and non-significant results may have occurred because the effect sizes found in this study were predominantly small according to Cohen (2013) and in most cases even well below .01. The reason for this could be the weak local overarching identity manipulation but also the hypothetical nature of the study.

Against this background, it would be insightful to conduct a similar study within a real eco-village, as increased external validity provides a more reliable basis for practical implications. However, it could be very hard to find an eco-village that agrees with being portrayed as highly morally motivated, especially if potential negative effects are predicted.

In addition to the small effect sizes, there has been no control group for the high moral motivation factor. The descriptive mean values could indicate that even in the high morality framing group, non-eco-villagers were generally interested in the activities of the ecovillages and showed quite high pro-environmental intentions. This should be investigated in future studies by including a control group without any moral motivation.

The high means of pro-environmental intentions are also likely to be biased by social desirability (Vesely & Klöckner, 2020). Furthermore, the validity and operationalisation for sustainability transformation is questionable due to the intention-behaviour gap, according to which intentions are a poor predictor of behaviour (Bernardes et al., 2018; ElHaffar et al., 2020). Therefore, future research should include real-world behavioural measures of sustainability transformation. In addition, it would be interesting to directly examine group boundaries explicitly as a mediator, as this mechanism is often used as an underlying mechanism in the literature but would have gone beyond the scope of this thesis.

#### **Practical implications and conclusion**

This thesis has shown that the de-evaluation of eco-villagers is an important underlying mechanism explaining how a high moral motivation framing can hamper sustainability transformation. This raises the question how eco-villagers can avoid being perceived as morally judgmental when advocating for sustainability transformation. As a practical recommendation, they should be careful about their external perception so as not to be associated with moralising. In any case they should avoid appearing as being judgmental and morally superior to non-eco-villagers and frame their public communication accordingly. This is especially important since no clear evidence for a counteracting mechanism in form of an overarching identity was found. Finally, because it is better to be safe than sorry, not only eco-villagers but all agents advocating for a sustainability transformation should be careful not to be perceived as moralising. It seems likely that the hampering effect of a high moral motivation framing can occur for various sustainable behaviours.

#### References

- Agostini, M., & van Zomeren, M. (2021). Toward a comprehensive and potentially cross-cultural model of why people engage in collective action: A quantitative research synthesis of four motivations and structural constraints. *Psychological Bulletin*, *147*(7), 667–700. https://doi.org/10.1037/bul0000256
- Barth, M., Masson, T., Fritsche, I., Fielding, K., & Smith, J. R. (2021). Collective responses to global challenges: The social psychology of pro-environmental action. *Journal of Environmental Psychology*, 74, 101562. https://doi.org/10.1016/j.jenvp.2021.101562
- Batalha, L., & Reynolds, K. J. (2012). ASPIRing to Mitigate Climate Change: Superordinate Identity in Global Climate Negotiations. *Political Psychology*, *33*(5), 743–760. https://doi.org/10.1111/j.1467-9221.2012.00896.x
- Bernardes, J. P., Ferreira, F., Marques, A. D., & Nogueira, M. (2018). "Do as I say, not as I do" a systematic literature review on the attitude-behaviour gap towards sustainable consumption of Generation Y. *IOP Conference Series: Materials Science and Engineering*, 459, 12089. https://doi.org/10.1088/1757-899X/459/1/012089
- Blanz, M. (2021). Forschungsmethoden und Statistik für die Soziale Arbeit: Grundlagen und Anwendungen (2nd ed.). Kohlhammer Verlag.

  https://elibrary.kohlhammer.de/book/10.17433/978-3-17-039819-1
- Bolderdijk, J. W., & Jans, L. (2021). Minority influence in climate change mitigation. *Current Opinion in Psychology*, 42, 25–30. https://doi.org/10.1016/j.copsyc.2021.02.005
- Buhl, T. (1999). Positive-Negative Asymmetry in Social Discriniination: Meta-Analytical Evidence. *Group Processes & Intergroup Relations*, 2(1), 51–58. https://doi.org/10.1177/1368430299021004

- Cohen, J. (2013). *Statistical Power Analysis for the Behavioral Sciences*. Taylor and Francis. https://doi.org/10.4324/9780203771587
- ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. *Journal of Cleaner Production*, 275, 122556.

  https://doi.org/10.1016/j.jclepro.2020.122556
- Engels, A., Marotzke, J., Gresse, E., López-Rivera, A., Pagnone, A., & Wilkens, J. (2023).

  Hamburg Climate Futures Outlook: The plausibility of a 1.5°c limit to global warming social drivers and physical processes. https://doi.org/10.25592/uhhfdm.11230
- Fielding, K. S., & Hornsey, M. J. (2016). A Social Identity Analysis of Climate Change and Environmental Attitudes and Behaviors: Insights and Opportunities. *Frontiers in Psychology*, 7, 121. https://doi.org/10.3389/fpsyg.2016.00121
- Finch, H. (2005). Comparison of the Performance of Nonparametric and Parametric MANOVA

  Test Statistics when Assumptions Are Violated. *Methodology*, *1*(1), 27–38.

  https://doi.org/10.1027/1614-1881.1.1.27
- Fischer, R., & Derham, C. (2016). Is in-group bias culture-dependent? A meta-analysis across 18 societies. *SpringerPlus*, 5, 70. https://doi.org/10.1186/s40064-015-1663-6
- Fritsche, I., Barth, M., Jugert, P., Masson, T., & Reese, G. (2018). A social identity model of pro-environmental action (SIMPEA). *Psychological Review*, *125*(2), 245–269. https://doi.org/10.1037/rev0000090
- GEN Europe. (2022a, August 2). *Who we are GEN Europe*. https://gen-europe.org/about-gen-europe/who-we-are/

- GEN Europe. (2022b, August 12). What is an ecovillage? GEN Europe. https://geneurope.org/ecovillages/what-is-an-ecovillage/
- Gilman, R. (1991). *The Eco-village Challenge*. Living Together. Sustainable Community

  Development.

  https://web.archive.org/web/20041213201638/http://www.context.org/ICLIB/IC29/Gilman1.htm
- Groeve, B. de, & Rosenfeld, D. L. (2022). Morally admirable or moralistically deplorable? A theoretical framework for understanding character judgments of vegan advocates.

  \*Appetite\*, 168, 105693. https://doi.org/10.1016/j.appet.2021.105693
- Haslam, S. A., Eggins, R. A., & Reynolds, K. J. (2003). The ASPIRe model: Actualizing Social and Personal Identity Resources to enhance organizational outcomes. *Journal of Occupational and Organizational Psychology*, 76(1), 83–113.
  https://doi.org/10.1348/096317903321208907
- Hornsey, M. J. (2008). Social Identity Theory and Self-categorization Theory: A Historical Review. *Social and Personality Psychology Compass*, 2(1), 204–222. https://doi.org/10.1111/j.1751-9004.2007.00066.x
- Hornung, J. (2022). Social identities in climate action. *Climate Action*, *1*(1), 1–12. https://doi.org/10.1007/s44168-022-00005-6
- IPCC. (2018). Global Warming of 1.5 °C: An IPCC special report on the impacts of global warming of 5C above pre-industrial levels andrelated global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change. https://www.ipcc.ch/sr15/download/

- Jans, L. (2021). Changing environmental behaviour from the bottom up: The formation of proenvironmental social identities. *Journal of Environmental Psychology*, 73, 101531. https://doi.org/10.1016/j.jenvp.2020.101531
- Kurz, T., Prosser, A. M., Rabinovich, A., & O'Neill, S. (2020). Could Vegans and Lycra Cyclists be Bad for the Planet? Theorizing the Role of Moralized Minority Practice Identities in Processes of Societal-Level Change. *Journal of Social Issues*, 76(1), 86–100.
  https://doi.org/10.1111/josi.12366
- Liu, L., Bouman, T., Perlaviciute, G., & Steg, L. (2020). Effects of competence- and integrity-based trust on public acceptability of renewable energy projects in China and the Netherlands. *Journal of Environmental Psychology*, 67, 101390. https://doi.org/10.1016/j.jenvp.2020.101390
- Loy, L. S., Reese, G., & Spence, A. (2022). Facing a Common Human Fate: Relating Global Identity and Climate Change Mitigation. *Political Psychology*, *43*(3), 563–581. https://doi.org/10.1111/pops.12781
- Milfont, T. L., Osborne, D., Yogeeswaran, K., & Sibley, C. G. (2020). The role of national identity in collective pro-environmental action. *Journal of Environmental Psychology*, 72, 101522. https://doi.org/10.1016/j.jenvp.2020.101522
- Minson, J. A., & Monin, B. (2012). Do-Gooder Derogation. *Social Psychological and Personality Science*, 3(2), 200–207. https://doi.org/10.1177/1948550611415695
- Monin, B., Sawyer, P. J., & Marquez, M. J. (2008). The rejection of moral rebels: Resenting those who do the right thing. *Journal of Personality and Social Psychology*, 95(1), 76–93. https://doi.org/10.1037/0022-3514.95.1.76

- Parker, M. T., & Janoff-Bulman, R. (2013). Lessons from Morality-Based Social Identity: The

  Power of Outgroup "Hate," Not Just Ingroup "Love". *Social Justice Research*, 26(1), 81–
  96. https://doi.org/10.1007/s11211-012-0175-6
- Postmes, T., Haslam, S. A., & Jans, L. (2013). A single-item measure of social identification:

  Reliability, validity, and utility. *The British Journal of Social Psychology*, 52(4), 597–617. https://doi.org/10.1111/bjso.12006
- Reese, G. (2016). Common human identity and the path to global climate justice. *Climatic Change*, 134(4), 521–531. https://doi.org/10.1007/s10584-015-1548-2
- Slater, M. J., Evans, A. L., & Turner, M. J. (2016). Implementing a Social Identity Approach for Effective Change Management. *Journal of Change Management*, *16*(1), 18–37. https://doi.org/10.1080/14697017.2015.1103774
- Sloot, D., Jans, L., & Steg, L. (2018). Can community energy initiatives motivate sustainable energy behaviours? The role of initiative involvement and personal pro-environmental motivation. *Journal of Environmental Psychology*, *57*, 99–106. https://doi.org/10.1016/j.jenvp.2018.06.007
- Sparkman, G., & Attari, S. Z. (2020). Credibility, communication, and climate change: How lifestyle inconsistency and do-gooder derogation impact decarbonization advocacy.

  \*Energy Research & Social Science, 59, 101290.\*

  https://doi.org/10.1016/j.erss.2019.101290
- Steg, L., & Nordlund, A. (2019). Theories to Explain Environmental Behaviour. In L. Steg & J.
  I. M. de Groot (Eds.), *BPS textbooks in psychology. Environmental psychology: An introduction* (pp. 217–227). John Wiley & Sons, Inc.
  https://doi.org/10.1002/9781119241072.ch22

- United Nations. (2015). Transforming our world: the 2030 Agenda for Transforming our world: the 2030 Agenda for Sustainable Development. https://sdgs.un.org/2030agenda
- van der Werff, E., Steg, L., & Keizer, K. (2013). The value of environmental self-identity: The relationship between biospheric values, environmental self-identity and environmental preferences, intentions and behaviour. *Journal of Environmental Psychology*, *34*, 55–63. https://doi.org/10.1016/j.jenvp.2012.12.006
- van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, *134*(4), 504–535. https://doi.org/10.1037/0033-2909.134.4.504
- Vesely, S., & Klöckner, C. A. (2020). Social Desirability in Environmental Psychology Research: Three Meta-Analyses. *Frontiers in Psychology*, 11, 1395. https://doi.org/10.3389/fpsyg.2020.01395
- Vesely, S., Masson, T., Chokrai, P., Becker, A. M., Fritsche, I., Klöckner, C. A., Tiberio, L., Carrus, G., & Panno, A. (2021). Climate change action as a project of identity: Eight meta-analyses. *Global Environmental Change*, 70, 102322. https://doi.org/10.1016/j.gloenvcha.2021.102322
- Wenzel, M., Mummendey, A., & Waldzus, S. (2007). Superordinate identities and intergroup conflict: The ingroup projection model. *European Review of Social Psychology*, *18*(1), 331–372. https://doi.org/10.1080/10463280701728302
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, *37*(2), 197–206. https://doi.org/10.1086/651257

#### **Appendix:**

#### **Manipulation checks**

#### High moral motivation & eco-village identification

Please Imagine the following scenario about an ecovillage in your municipality:

Ecovillage X:

'We are a great and unique community on a moral mission to protect the environment'.

The ecovillage considers unsustainable practices morally wrong This means that in all their activities environmental protection is guiding. Among others, this includes vegetarianism as well as sustainable farming, composting and energy production. The members feel deeply connected to the eco village and the people living there and aim to contribute to this special community. The members welcome you to come join the events organized at the eco-village, to teach others to live sustainably. The eco-village organizes open house events, monthly markets with self-grown food. Additionally, they offer lessons in renewable energy solutions and regenerative agriculture for nearby schools. "As an eco-village it is our moral duty to live sustainably".

#### Moderate moral motivation & eco-village identification

Please Imagine the following scenario about an ecovillage in your municipality:

Ecovillage X: 'We are a great and unique community who cares about environmental protection'

The eco-village hopes to contribute to protecting the environment with their lifestyle.

Among others, this includes not eating meat as well as sustainable farming, composting and energy production. The members feel deeply connected to the eco village and the people living there, and aim to contribute to this special community. The members welcome you to come join

the events organized at the eco-village, to share experiences of living sustainably. The eco-village organizes open house events, monthly markets with self-grown food. Additionally, they offer lessons in renewable energy solutions and regenerative agriculture for nearby schools. "As an eco-village we try to live sustainably".

## High moral motivation & local identification

Imagine the following scenario about an ecovillage in your municipality

Ecovillage X: We are part of this great and unique municipality and have a moral mission to protect the environment'

The ecovillage considers unsustainable practices morally wrong. This means that in all their activities environmental protection is guiding. Among others, this includes vegetarianism as well as sustainable farming, composting and energy production. The members feel deeply connected to our municipality and the people living there, and aim to contribute to our special community. The members welcome you to come join the events organized at the eco-village, to teach fellow municipality members to live sustainably. The eco-village organizes open house events, monthly markets with self-grown food. Additionally, they offer lessons in renewable energy solutions and regenerative agriculture for nearby schools. "As municipality inhabitants, it is our moral duty to live sustainably"

#### Moderate moral motivation & local identification

Imagine the following scenario about an ecovillage in your municipality

Ecovillage X:

'We are part of this great and unique municipality and care about environmental protection'

The eco-village hopes to contribute to protecting the environment with their lifestyle. Among others, this includes not eating meat as well as sustainable farming, composting

and energy production. The members feel deeply connected to our municipality and the people living there, and aim to contribute to our special community. The members welcome you to come join the events organized at the eco-village, to share experience of living sustainably with fellow municipality members. The eco-village organizes open house events, monthly markets with self-grown food. Additionally, they offer lessons in renewable energy solutions and regenerative agriculture for nearby schools. "As a municipality, we try to live sustainably"

#### More details plausible checks:

Cases showing the unplausible following five patterns were looked at manually to check for abnormalities in the answering structure:

- 1) For the item "Acting environmentally friendly is an important part of who I am." there is a value of higher than five selected **and** for the item "I want to buy environmental friendly products" a value lower than 3 was selected. There was one case where this condition applied. However, a manually check could not detect any further unusual patterns so the case was not removed.
- 2) For the item "Acting environmentally friendly is an important part of who I am." there is a value of higher than five selected **and** for the item "I want to learn more about the eco-village.", a value lower than three was selected. This condition was true for 6 cases which were screened for unusual data patterns manually. However, the answers seemed fine and often, other willingness to join items had higher values than the item "I want to learn more about the eco-village" which is interesting because it was assumed to be the one with the lowest hurdle.

- 3) For the bipolar evaluation item "very negative/very positive" there is a value of lower than -1 selected **and** for the item "I want to become involved in the eco-village (investing time, money etc.)", a value higher than five is selected. There were no cases where this condition was fulfilled.
- 4) The selected values for the four items of the Identification check for eco-village identification ("The inhabitants of the eco-village seem to identify strongly with their ecovillage.", "The inhabitants of the eco-village see themselves as a unique group that is different from others." and local Identification ("The inhabitants of the ecovillage seem to identify strongly with our community" and "The inhabitants of the ecovillage perceive themselves and the community members as similar") are all four (the midpoint of the scale). The condition was true for 13 cases.

#### More detailed assumption testing

## Normality distribution.

The assumption of normality was violated, as for all of the dependent variables, the Shapiro-Wilk test was significant (p > .001).

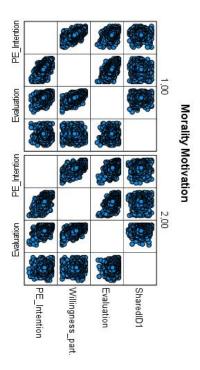
#### **Multicollinearity**

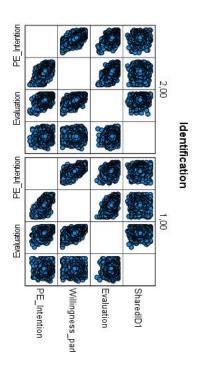
Correlations between dependent variables were low (r < .80), indicating that multicollinearity was not a confounding factor in the analysis.

## Linearity

Scatterplots of the variables evaluation,
shared identity, willingness to participate
and pro-environmental intention for the
factor moral motivation and identification

Scatterplots of the variables evaluation,
shared identity, willingness to participate and
pro-environmental intention for the factor
moral motivation and identification





The assumption of linearity seems to be satisfyingly fulfilled for most variables.

However, for the (first measured) Shared identity items, no elliptical shape is recognizable. This shape of the distribution does neither change when the second measured shared identity items nor when the 229 the cases failing the local identity manipulation check failed were excluded. However, this does not necessarily mean that the assumption of linearity is violated. Instead, a cloud of dots indicates that the variables are rarely associated.

#### Homogeneity of error variances

Homogeneity of error variances for the dependent variables (p > .05) according to Levene's test. based on the median could be confirmed for the dependent variables.

# Homogeneity of covariances

Homogeneity of covariances can be assumed according to Box's test (p > .005)

#### Information für Teilnehmende

## INFORMATION ÜBER DIE STUDIE

Was motiviert Menschen, in Ökodörfer zu ziehen und sich für eine nachhaltige Transformation der Gesellschaft zu engagieren? Das von der EU geförderte Forschungsprojekt EC² geht dieser Frage nach. Im Rahmen dieses Projekts führt die Universität Groningen (UG) in den Niederlanden in Zusammenarbeit mit den Universitäten Leipzig (Deutschland) und Graz (Österreich) unabhängige Untersuchungen zu verschiedenen Energiegemeinschaften in Europa durch.

## Was wollen wir von Ihnen für die Studie wissen?

Wir sind an Ihrer Meinung zu Ökodörfern und deren potentiellen Einfluss auf Sie interessiert. Sie werden gebeten, sich ein hypothetisches Ökodorf in Ihrer Region vorzustellen. Anschließend werden Sie nach Ihren Meinungen und Wahrnehmungen zu diesem Ökodorf befragt. Der Fragebogen enthält auch Fragen zu Ihren Werten, Ihrer Motivation und Ihren Absichten in Bezug auf Nachhaltigkeit. Ihnen wird nach dem Zufallsprinzip eines von vier möglichen Szenarien für ein Ökodorf vorgelegt. Dies hilft uns, besser zu verstehen, wie die Menschen über verschiedene Arten von Ökodörfern denken. Es gibt keine richtigen oder falschen Antworten. Wir bitten auch um einige persönliche Angaben, um festzustellen, welche gesellschaftlichen Gruppen an dieser Untersuchung teilgenommen haben.

Das Ausfüllen des gesamten Fragebogens dauert etwa **15-20 Minuten**. Sie werden so schnell wie möglich bezahlt, sobald wir Ihren Beitrag überprüft haben, spätestens jedoch innerhalb von 21 Tagen. Die Teilnahme ist völlig freiwillig und streng vertraulich. Sie können jederzeit aufhören, indem Sie den Fragebogen nicht (weiter) ausfüllen. Außerdem enthält der Fragebogen zwei Aufmerksamkeitschecks, die bei falscher Beantwortung zum vorzeitigen Ende des Fragebogens führen.

# Wie behandeln wir Ihre persönlichen Daten?

Ihre Prolific-ID wird verwendet, um Sie für Ihre Teilnahme zu entschädigen. Danach

wird Ihre Prolific-ID entfernt und die Daten werden anonymisiert. Das bedeutet, dass Sie nicht mehr in der Lage sein werden, Zugang zu Ihren Daten zu verlangen oder Ihre Daten aus der Studie zurückzuziehen. Der Rest der Umfragedaten wird auf sicheren Servern für die Dauer von mindestens 10 Jahren gemäß den UG-Richtlinien archiviert.

Nur das Forschungsteam der UG (Dr. Fleur Goedkoop, Dr. Lise Jans, Dr. Goda Perlaviciute) und die Masterstudentin Annika Walkenhorst der UG haben Zugang zu Ihren Daten. Vollständig anonymisierte Daten und aggregierte Ergebnisse werden öffentlich zugänglich gemacht.

Wenn Sie Fragen zu Ihren Rechten als ForschungsteilnehmerIn oder zur Durchführung der Studie haben, können Sie sich auch an die Ethikkommission der Fakultät für Verhaltens- und Sozialwissenschaften der UG wenden: ec-bss@rug.nl.

Mit Fragen zum Umgang mit Ihren persönlichen Daten können sich auch an den Datenschutzbeauftragten der UG wenden: privacy@rug.nl.

Diese Forschung wird von der Europäischen Kommission im Rahmen von Horizon 2020 unter der Grant Agreement Nummer 101022565 gefördert. Informationen über das Projekt finden Sie unter https://ec2project.eu.

## **EINVERSTÄNDNISERKLÄRUNG**

Ich habe die Informationen über die Studie gelesen. Ich verstehe, worum es bei der Untersuchung geht, was von mir verlangt wird, welche Folgen die Teilnahme haben kann, wie mit meinen Daten umgegangen wird und welche Rechte ich als TeilnehmerIn habe. Ich verstehe, dass die Teilnahme an der Studie freiwillig ist. Ich selbst entscheide mich für die Teilnahme. Ich kann die Teilnahme jederzeit und ohne Angabe von Gründen beenden. Das Beenden hat für mich keine negativen Folgen.

Sind Sie damit einverstanden, an dieser Untersuchung teilzunehmen? Ja, ich bin mit der Teilnahme einverstanden. Nein, ich bin nicht mit der Teilnahme einverstanden. Zustimmung zur Verarbeitung meiner personenbezogenen Daten (einschließlich der Panel Insight ID für Ausgleichszahlungen) wie in der Studieninformation auf der vorigen Seite angegeben: Ja, ich bin mit der Verarbeitung meiner personenbezogenen Daten einverstanden. Nein, ich bin nicht mit der Verarbeitung meiner personenbezogenen Daten einverstanden. Sind Sie sicher, dass Sie nicht in die Teilnahme einwilligen wollen? Leider können Sie in diesem Fall nicht nicht an der Umfrage teilnehmen. Nein, Ich möchte nicht in die Teilnahme einwilligen. Ja, ich möchte doch in die Teilnahme einwilligen. Sind Sie sicher, dass Sie nicht in die Verarbeitung Ihrer personenbezogenen Daten einwilligen wollen? Leider können Sie in diesem Fall nicht nicht an der Umfrage teilnehmen. Nein, Ich möchte nicht in die Verarbeitung meiner personenbezogenen Daten einwilligen. Ja, ich möchte doch in die Verarbeitung meiner personenbezogenen Daten einwilligen.

# **Prolific ID**

## What ist Ihre Prolific ID?

Bitte beachten Sie, dass diese Antwort automatisch mit der richtigen ID ausgefüllt werden sollte.

\${e://Field/PROLIFIC\_PID}

Wenn das automatische Ausfüllen nicht funktioniert hat, geben Sie hier bitte Ihre Prolific-ID ein:

(Andernfalls können Sie die Frage überspringen)

ESI_	_expl-moderator_	_1

Bitte geben Sie den Grad Ihrer Zustimmung zu den folgenden Aussagen an.

			e lupt	teil tei	s,	stimm vc un gan z	
	1	2	3	4	5	6	
Umweltfreundliches Handeln ist ein wichtiger Teil meines Wesens.	0	0	0	0	0	0(	
Kreuzen Sie bei dieser Aussage bitte "stimme überhaupt nicht zu" an (Aufmerksamkeits-Check)	0	0	0	0	0	0 (	
Ich sehe mich selbst als einen umweltfreundlichen Menschen.	0	0	0	0	0	0(	
Ich bin der Typ von Mensch, der sich umweltfreundlich verhält.	0	0	0	0	0	0(	

ID\_local\_region\_expl.moderator\_2

Wie sehr stimmen Sie den folgenden Aussagen zu?

					stir
	nme				
nic	erha	upı	teil	<u> </u>	,
ZU	IIL		tei	,	ί
Zu			toi	13	
1	2	3	4	5	6
$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	C

Ich identifiziere mich mit den EinwohnerInnen meiner Gemeinde.

Vielen Dank für die Beantwortung der ersten Reihe von Fragen. Nun werden wir Ihnen ein Szenario vorstellen und Ihnen dazu Fragen stellen. Wenn Sie möchten, können Sie jetzt eine kurze Pause einlegen, bevor Sie fortfahren.

## Manipulation High MM & eco-village ID

Bitte stellen Sie sich vor, dass das im Folgenden beschriebene Ökodorf in Ihrer Gemeinde existiert:

# Ökodorf Ecotopia: "Wir sind eine großartige und einzigartige Gemeinschaft mit einer moralischen Mission zum Schutz der Umwelt"

Das Okodorf Ecotopia betrachtet nicht-nachhaltige Verhaltensweisen als moralisch falsch. Das bedeutet, dass bei allen Aktivitäten der Umweltschutzgedanke leitend ist. Unter anderem bedeutet dies eine vegetarische Ernährung sowie eine nachhaltige Landwirtschaft, Kompostierung und Energieerzeugung.

Die Mitglieder fühlen sich Ecotopia und den Menschen, die dort leben, sehr verbunden und möchten einen Beitrag zu dieser besonderen Gemeinschaft leisten. Die Mitglieder laden Sie herzlich zu den Veranstaltungen ein, die im Ökodorf organisiert werden, um anderen beizubringen, wie man nachhaltig lebt. Ecotopia organisiert Veranstaltungen zum Tag der offenen Tür und monatliche Märkte mit selbst angebauten Lebensmitteln. Außerdem bieten sie für Schulen in der Umgebung Unterricht in erneuerbaren Energien und regenerativer Landwirtschaft an.

"Als Ökodorf ist es unsere moralische Pflicht, eine Vorbildfunktion für einen

# nachhaltigen Lebensstil einzunehmen."

# Manipulation moderate MM & eco-village ID

Bitte stellen Sie sich im Folgenden vor, dass das folgende Ökodorf in Ihrer Gemeinde existiert:

Ökodorf Ecotopia: "Wir sind eine großartige und einzigartige Gemeinschaft, der der Umweltschutz am Herzen liegt"

Das Ökodorf Ecotopia hofft, mit seinem Lebensstil einen Beitrag zum Umweltschutz zu leisten. Unter anderem bedeutet dies den Verzicht auf Fleisch sowie eine nachhaltige Landwirtschaft, Kompostierung und Energieerzeugung. Die Mitglieder fühlen sich Ecotopia und den Menschen, die dort leben, sehr verbunden und möchten einen Beitrag zu dieser besonderen Gemeinschaft leisten. Außerdem laden diese Sie herzlich ein, an den Veranstaltungen des Ökodorfs teilzunehmen, um Erfahrungen über einen nachhaltigen Lebensstil auszutauschen. Ecotopia organisiert Veranstaltungen zum Tag der offenen Tür und monatliche Märkte mit selbst angebauten Lebensmitteln. Darüber hinaus bieten sie für Schulen in der Umgebung Unterricht in erneuerbaren Energien und regenerativer Landwirtschaft an.

"Als Ökodorf versuchen wir, nachhaltig zu leben".

# Manipulation high MM & local region ID

Bitte stellen Sie sich im Folgenden vor, dass das folgende Ökodorf in Ihrer Gemeinde existiert:

Ökodorf Ecotopia: Wir sind Teil dieser großartigen und einzigartigen Gemeinde und haben die moralische Mission, die Umwelt zu schützen."

Das Ökodorf Ecotopia betrachtet nicht nachhaltige Verhaltensweisen als moralisch falsch. Das bedeutet, dass bei allen Aktivitäten der Umweltschutzgedanke leitend ist. Unter anderem bedeutet dies eine vegetarische Ernährung sowie eine

nachhaltige Landwirtschaft, Kompostierung und Energieerzeugung. Die Mitglieder fühlen sich unserer Gemeinde und den dort lebenden Menschen sehr verbunden und möchten einen Beitrag zu unserer besonderen Gemeinschaft leisten. Außerdem laden diese Sie herzlich zu den Veranstaltungen ein, die im Ökodorf organisiert werden, um anderen Gemeindemitgliedern beizubringen, wie man nachhaltig lebt. Ecotopia organisiert Veranstaltungen zum Tag der offenen Tür und monatliche Märkte mit selbst angebauten Lebensmitteln. Darüber hinaus bieten sie für Schulen in der Umgebung Unterricht in erneuerbaren Energien und regenerativer Landwirtschaft an.

"Als Gemeindemitglieder ist es unsere moralische Pflicht, eine Vorbildfunktion für einen nachhaltigen Lebensstil einzunehmen."

# Manipulation moderate MM & local region ID

Bitte stellen Sie sich im Folgenden vor, dass das folgende Ökodorf in Ihrer Gemeinde existiert:

Ökodorf Ecotopia: "Wir sind Teil dieser großartigen und einzigartigen Gemeinde, der der Umweltschutz am Herzen liegt."

Das Ökodorf Ecotopia hofft, mit seinem Lebensstil einen Beitrag zum Umweltschutz zu leisten. Unter anderem bedeutet dies den Verzicht auf Fleisch sowie eine nachhaltige Landwirtschaft, Kompostierung und Energieerzeugung. Die Mitglieder fühlen sich unserer Gemeinde und den dort lebenden Menschen sehr verbunden und wollen einen Beitrag zu unserer besonderen Gemeinschaft leisten. Außerdem laden diese Sie herzlich ein, an den Veranstaltungen des Ökodorfs teilzunehmen, um mit anderen Gemeindemitgliedern Erfahrungen über einen nachhaltigen Lebensstil auszutauschen. Ecotopia organisiert Veranstaltungen zum Tag der offenen Tür und monatliche Märkte mit selbst angebauten Lebensmitteln. Darüber hinaus bieten sie für Schulen in der Umgebung Unterricht in erneuerbaren Energien und regenerativer Landwirtschaft an.

"Als Gemeindemitglieder versuchen wir, nachhaltig zu leben".

# Manipulation check\_1 morality

Bitte Stellen Sie sich vor, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert. Wie würden Sie die BewohnerInnen von Ecotopia beschreiben?

umwelt <b>un</b> freundlich	0000000	umweltreundlich
nicht wertend/urteilend	000000	wertend/urteilend
unmoralisch	0000000	moralisch

# **Dependent Variables**

Bei den folgenden Fragen geht es um Ihr zukünftig geplantes Verhalten. Bitte stellen Sie sich vor, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert. Wie sehr stimmen Sie den folgenden Aussagen zu? Ich ...

						stim	me	
	stimme überhaup				V			
			upt				und	
	nic	ht		teil	•	ga	anz	
	ZU			tei	ls		zu	
	1	2	3	4	5	6	7	
bin daran interessiert, in das Ökodorf zu ziehen.	0	0	0	0	0	0	0	
möchte das Ökodorf besuchen.	0	0	0	0	0	0	0	
möchte im Ökodorf leben.	0	0	0	0	0	0	0	
möchte an Aktivitäten, die vom Ökodorf organisiert werden, teilnehmen.	0	0	0	0	0	0	0	
möchte anfangen, in das Ökodorf involviert zu sein (Investition von Zeit, Geld etc.).	0	0	0	0	0	0	0	
möchte mehr über das Ökodorf lernen.	0	0	0	0	0	0	0	

# Zukünftig möchte ich...

	üb nic	stimme überhaupt nicht zu			ls, Is	stimme voll und ganz zu		
	1	2	3	4	5	6	7	
erneuerbare Energiequellen im Haushalt nutzen (z.B. Solarpanels oder eine Wärmepumpe).	0	0	0	0	0	0	0	
umweltfreundliche Produkte kaufen	0	0	0	0	0	0	0	
Weiterbildungsveranstaltungen organisieren in denen ein nachhaltiger Lebensstil vermittelt wird.	0	0	0	0	0	0	0	
Autofahrten reduzieren	0	0	0	0	0	0	0	
mein eigenes Gemüse anbauen	0	0	0	0	0	0	0	
an Umweltorganisationen spenden	0	0	0	0	0	0	0	

# Mediator 1\_Shared\_IDitems

Stellen Sie sich vor, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert. Wie sehr stimmen Sie den folgenden Aussagen zu?

	stimn überh nicht zu	teil		g:	me voll und anz zu	
	1 2	3	4	5	6	7
Die Mitglieder des Ökodorfs und die Mitglieder der Gemeinde teilen gemeinsame Interessen.	0 (	0	0	0	0	0
Die Mitglieder des Ökodorfs und die Mitglieder der Gemeinde stellen verschiedene Gruppen dar.	0 0	0	0	0	0	0
Die Mitglieder des Ökodorfs und die Mitglieder der Gemeinde gehören zur gleichen Gruppe.	0 0	0	0	0	0	0
Kreuzen Sie bei dieser Aussage bitte "stimme überhaupt nicht zu" an (Aufmerksamkeits-Check)	0 0	0	0	0	0	0

## **Mediators**

Stellen Sie sich vor, es würde ein Ökodorf wie Ecotopia Ihrer Gemeinde geben. Bitte schätzen Sie das Ökodorf auf den folgenden Dimensionen ein:

sehr unakzeptabel O O O O O sehr akzeptabel sehr negativ O O O O O O sehr positiv sehr schlecht O O O O O O sehr gut

Wie würden Sie die BewohnerInnen von Ecotopia erleben?

sehr kalt OOOOO sehr warm

Stellen Sie sich vor, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert. Wie sehr stimmen Sie den folgenden Aussagen zu?

	stimme überhaupt nicht zu			tei tei	ls,	ga	me voll und anz zu
	1	2	3	4	5	6	7
Kreuzen Sie bei dieser Aussage bitte "stimme überhaupt nicht zu" an (Aufmerksamkeits-Check)	0	0	0	0	0	0	0
Die Mitglieder des Ökodorfs und die Mitglieder der Gemeinde teilen gemeinsame Interessen.	0	0	0	0	0	0	0
Die Mitglieder des Ökodorfs und die Mitglieder der Gemeinde gehören zur gleichen Gruppe.	0	0	0	0	0	0	0
Die Mitglieder des Ökodorfs und die Mitglieder der Gemeinde stellen verschiedene Gruppen dar.	0	0	0	0	0	0	0

Bitte stellen Sie sich weiterhin vor, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert.

Geben Sie das Ausmaß der Identifikation von den BewohnerInnen des Ökodorfs mit den Mitgliedern der Gemeinde an.

Stellen Sie sich vor, dass einer der Kreise links die Identität von den BewohnerInnen des Ökodorfs darstellt und der andere Kreis auf der rechten Seite die Identität der Gemeindemitglieder. Bitte geben Sie an, welcher Fall (A, B,C,D, E,

F, G oder H) am besten das Verhältnis von beiden Identitäten beschreibt.

	Mitglieder Ecotopia Gemein	de <sup>(Identität)</sup>
Α		Weit entfernt
В		Nah beieinander, aber getrennt
С		Sehr kleine Überschneidung
D		Kleine Überschneidung
E		Moderate Überschneidung
F		Große Überschneidung
G		Sehr große Überschneidung
н		Komplette Überschneidung

Wie sehr stimmen Sie den folgenden Aussagen zu, wenn Sie sich vorstellen, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert ?

		nme erha ht		teil tei	s,	ι	me voll und anz zu
	1	2	3	4	5	6	7
Das Ökodorf ist repräsentativ für die EinwohnerInnen meiner Gemeinde.	0	0	0	0	0	0	0
Das Ökodorf fördert die Interessen der EinwohnerInnen meiner Gemeinde.	0	0	0	0	0	0	0
Das Ökodorf engagiert sich für Aktivitäten, die für die EinwohnerInnen meiner Gemeinde nützlich sind.	0	0	0	0	0	0	0
Das Ökodorf schafft ein Gefühl des Zusammenhalts unter den EinwohnerInnen meiner Gemeinde.	0	0	0	0	0	0	0

Im Folgenden geht es um die Gemeinde, in der Sie leben. Wie sehr stimmen Sie den folgenden Aussagen zu?

	üb	stimme überhaupt nicht teils zu teil			s,	ι	me voll und anz zu
	1	2	3	4	5	6	7
Wir in unserer Gemeinde verstehen uns als umweltbewusste Menschen.	0	0	0	0	0	0	0
Umweltfreundliches Handeln ist ein wichtiger Teil unseres Selbstverständnisses als Gemeinde.	0	0	0	0	0	0	0
In der Gemeinde gehören wir zu den Personen, die umweltfreundlich handeln.	0	0	0	0	0	0	0

Checks\_2

Bitte stellen Sie sich weiterhin vor, dass das Ökodorf Ecotopia in Ihrer Gemeinde existiert. Wie sehr stimmen Sie den folgenden Aussagen zu?

	übe	stimme überhaupt nicht zu			ls, ils	U	me voll ind anz zu
	1	2	3	4	5	6	7
Die BewohnerInnen des Ökodorfs nehmen sich selbst und die Gemeindemitglieder als ähnlich wahr.	0	0	0	0	0	0	0
Die BewohnerInnen des Ökodorfs sehen sich selbst als eine einzigartige Gruppe, die sich von anderen unterscheidet	0	0	0	0	0	0	0
Die BewohnerInnen des Ökodorfs scheinen sich stark mit unserer Gemeinde zu identifizieren.	0	0	0	0	0	0	0
Die BewohnerInnen des Ökodorfs scheinen sich stark mit ihrem Ökodorf zu identifizieren.	0	0	0	0	0	0	0
Bitte hinterlassen Sie hinterlassen Sie hier einen Kommenta hatten, worum es in dieser Befragung ging.	ar, we	∍nn	Sie	eir	ne lo	dee	

**Demografics** 

Welchem Geschlecht ordnen Sie sich zu?
anderes
möchte ich lieber nicht sagen
Odivers
O männlich
O weiblich
Wie alt sind Sie?
Wie hoch ist Ihr monatliches Nettoeinkommen?
Gemeint ist der Betrag, der sich aus allen Einkünften zusammensetzt und nach
Abzug der Steuern und Sozialversicherungen übrig bleibt.
O Ich habe kein eigenes Einkommen
O weniger als 250 €
O 250 € bis unter 500 €
O 500 € bis unter 1000 €
O 1000 € bis unter 1500 €
O 1500 € bis unter 2000 €
O 2000 € bis unter 2500 €
O 2500 € bis unter 3000 €
O 3000 € bis unter 3500 €
O 3500 € bis unter 4000 €
O 4000 € oder mehr
O Ich möchte darauf lieber nicht antworten
Welches ist der höchste Bildungsabschluss, den Sie haben?

## **Debriefing**

## Sehr geehrte TeilnehmerInnen,

In dieser Studie ging es um die Bereitschaft der Menschen, sich an Ökodörfern zu beteiligen. Lokale Energieinitiativen können auf unterschiedliche Weise organisiert werden. Die TeilnehmerInnen wurden nach dem Zufallsprinzip in vier Gruppen eingeteilt. In der ersten Gruppe wurde den TeilnehmerInnen ein Szenario gezeigt, in dem die Mitglieder des Ökodorfs stark moralisch motiviert sind und sich sehr mit ihrem Ökodorf identifizieren. In der zweiten Gruppe wurde ein Szenario vorgestellt, in dem die Mitglieder des Ökodorfs lediglich in moderater Weiser moralisch motiviert handeln und sich ebenfalls stark mit ihrem Ökodorf identifizieren. In der dritten Gruppe wurde ein Szenario vorstestellt, in dem die Mitglieder des Ökodorfs stark moralisch motiviert sind und sich stark mit ihrer Gemeinde und deren Mitgliedern identifizieren. Im vierten und letzten Szenario waren die Mitglieder des Ökodorfs moderat moralisch motiviert und identifizierten sich stark mit ihrer Gemeinde und deren Mitgliedern.

Auf diese Weise soll untersucht werden, ob Unterschiede in der Beteiligung an Ökodörfern durch die Wahrnehmung von hohen moralischen Ansprüchen und die Identifikation mit einer übergeordneten Identität erklärt werden können. Wenn Sie Fragen oder Anmerkungen haben, wenden Sie sich bitte an das Forschungsteam unter a.walkenhorst@student.rug.nl.

Nochmals vielen Dank für Ihre Teilnahme!

Powered by Qualtrics