1. From Matters of Fact to Matters of Concern: Conserving Rural Natures in Participative Rural Development

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1. Introduction

Within participatory rural development policies such as the EU rural development program LEADER, a horizontal broadening of actors involved in arenas of rural governance is taking place (Navarro et al., 2016, p. 272). Concomitantly, the sites of knowledge production in rural development have multiplied. Discourses of neo-endogenous development value local, lay and situated forms of knowledge as development resources to be exploited in accordance with the rationality of the 'New Rural Paradigm'. With regard to the conservation of biodiversity and environmental resources more broadly, paralleling localizing effects are taking place. There is widespread recognition that, integrating affected stakeholders' knowledge in participative resource management, delivers more effective and sustainable outcomes. It is argued that, community-based management of environmental resources entails a co-production of knowledge, thereby combining scientific, managerial and contextual forms of knowledge in situational and locally specific knowledge complexes (Tovey, 2008, p. 191; Bruckmeier & Tovey, 2008).

At the same time, the conservation and management of environmental resources relies on bio-scientific knowledge to delimit its objects of concern. Conservation treats rural natures primarily as 'purified' objects of science, i.e. species, habitats, genetic resources as well as their interrelations. In contrast, local stakeholders' everyday understandings of rural natures are embedded in context-specific social-ecological relations,

which engender locally idiosyncratic ways to understand and respond to environmental problems. In order to come to fruition, bio-scientific expert knowledge has to be 'translated' into and adapted to local arenas of participatory rural governance. Vice versa, such translation processes feedback on the social relations by enrolling actors to mobilize and adapt this knowledge to local conditions, thereby reconstituting local arenas of rural governance in terms of actors, networks and their knowledge practices.

The article analyses the effects of the LEADER project "The Green Village" in a village in a LEADER region in the German federal state North Rhine-Westphalia in terms of knowledge dynamics between expert, managerial and lay forms of knowledge. "The Green Village"[1] project was conceived by a local nature conservation organization and incorporated into the Local Development Strategy (LDS) of the LEADER region "Low Mountain Range". With the participation of local residents, it aims to counteract the loss of biodiversity in the rural region in terms of 'typical' species linked traditional village habitats such as the orchard, meadow or cottage garden. Following the Sociology of Knowledge, this article analyses the relational knowledge building processes of various stakeholders as 'translations'. The notion of translation is a central heuristic device for the Anthropology of Policy. Translation denotes the hierarchic and powerful social practice of mobilizing and transferring knowledge, frames of interpretation and practices between different political scales, their obstinate reinterpretation and appropriation in specific contexts, as well as the reordering of social relations in heterogeneous actor networks (Callon 1986).

Latour argues that 'scientific facts' induce a reordering of the social world, by introducing new actors for whom others must give way. 'Scientific facts' renegotiate "what the world is made up of, who is acting in it, who matters, and who wants what." (Latour, 1993, p. 40). Yet, according to Latour, new 'scientific facts' do not reconstitute social reality on their own,

[1] Some of the data, including (place) names, and personal information has been anonymized to grant full anonymity to research partners.

but have to be mobilized by actor-networks to be able to act on the world. In a similar vein, with recourse to Latour, Hilary Tovey contends that

> "[s]cientific knowledge is not diffused to passive recipients; it has to be seized and moved by actors who can see interests for themselves in mobilizing the new knowledge. 'Seizing' and 'moving' knowledge inevitably involves re-working it; every 'translation' of knowledge produces a 'drift, betrayal, ambiguity' or 'diversion' of knowledge."
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> (Tovey, 2016, p. 111)

Thus, translation involves a strategic intent as it opens up 'scientific facts' to debate and contestation. It is in the course of multiple translation processes that knowledge becomes effective, when scientific "matters of fact" are transformed into "matters of concern". In contrast to matters of fact, which Latour considers as only very partial renderings of reality, he urges social scientists to "*add* reality to scientific objects" and move on to "highly complex, historically situated, richly diverse matters of concern" (Latour, 2004, p. 237). Matters of concern do not rest on scientific authority or indisputable claims to 'truth', but "derive their authority from how they manage to gather diverse contexts into themselves and are inclusive also of moral considerations, aesthetic judgments, political controversies and cultural concerns." (Welz, 2015, p. 128).

Following this understanding of translation, this article explores how different groups of actors in the context of a development intervention as part of "The Green Village" LEADER-project translate and adopt discourses of biodiversity by. In particular, the article asks how local actors translate discourses of biodiversity and how they mobilize them in order to act in the social world of the village, and to gain authority in managing the rural nature of their village.

The following section introduces the concept of rural natures, which forms the ontological backbone of the case study at hand. The consecutive section operationalizes translation as analytical framework. A knowledge controversy on the future development of a village green – induced by

introducing a biodiversity conservation measure in a village in the LEADER region "Low Mountain Range" – forms the empirical basis for the analysis. Eventually, I will draw conclusions concerning the integration of diverse forms of knowledge in participative rural development.

2. Conserving Rural Natures as a knowledge-driven processes

The term "rural nature" was first used in a descriptive sense by the geographer Marc Mormont in the context of regionalist movements in the 1980's in Belgium to denote representations of the rural that were positioned by "conservationists", "eco-activists" and "regionalists" against the central state paradigm of rural modernisation. Despite clear differences in objectives, these projects had in common that they mobilised conceptions of the 'rural' in the conflict over the appropriation of 'nature':

> "Their discourse is one of seeking a more convivial form of sociability than in the city, different work relationships and a different relationship with nature: the traditional rural world and the peasant way of life are quite clear references for their projects, for their aspirations, for their desire to be autonomous and for their dissent from the urban environment and the dominant economic universe."
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> (Mormont, 1987, p. 11)

Mormont's discursive analysis links different ideas of 'rurality' in relation to 'nature'. Since Mormont's analysis, rural natures have come to the fore as material forces in their own right. With the continuous loss of agrobiodiversity, the degradation of landscape qualities and the extraction of natural resources, the obvious malleability of rural natures has empowered approaches that focus on the social relations and relational practices that constitute apparently 'natural' entities. In this sense, the term rural natures encapsulates the epistemological pluralism and ontological multiplicities vividly described in anthropological accounts, which condition contextual configurations of 'cultural' and 'natural'

entities, and the relational practices that continuously enact specific ontological orders of nature/culture (Descola, 2013; Ingold, 2011).
As a site of epistemological controversies, rural natures are understood as a medium and expression of power relations. According to Braun and Castree, the material-discursive constructions of rural natures are the key sites of struggle, that link the material and discursive construction together in such a way that "understandings and interactions with, those things cannot be separated from the discursive practices that make them available [...] such that there is an implosion of the epistemological and the ontological." (Castree and Braun, 2006, p. 167).
The mutual entanglement of rural natures' materiality and the epistemic practices that make them available to transformation raises the question of processes of co-construction, i.e. the meeting point and intertwinement of the 'social' and the 'natural' (van der Ploeg, 2018, p. 1435). According to van der Ploeg, processes of co-production require particular social relations, i.e. institutions, cultural and knowledge repertoires, which are linked to context-specific rural activities and spaces:

"Rural natures are not external to rural activities, nor are they a simple input for them. [R]ural natures cannot be defined outside, or independently of, the spaces in which they are located (or rather in which they are *made*). They cannot be conceptualized apart from the activities that build upon them and through which they are reproduced […]. Rural natures not only contain resources, they in themselves represent a resource."

Given the preceding argument on the symbolic-material production of rural natures as a site of epistemic controversy, this article analyses the co-production process of a particular rural nature – the village green – in the context of a rural development intervention that aims to reorder the social-ecological relations towards the sustainable management of the villages' rural nature. Firstly, translation refers to transmitting the idea of conserving rural nature into local arenas of participatory governance (Müller et al., 2019).

Secondly, understanding the negotiation processes at the local level as translation opens up the perspective on the obstinate reinterpretations and adaptions of these ideas and their effects on reordering the social sphere of the village polity.

3. Translation as analytical framework

According to Michel Callon "the notion of translation emphasizes the continuity of the displacements and transformations which occur in this story: displacements of goals and interests, and also, displacements of devices, human beings […] and inscriptions" (Callon, 1986, p. 223). Drawing on the sociological studies of science, Callon distinguishes four moments of translation: *Problematization, interessement, enrolment* and *mobilization*. As Andrew Barry has remarked, these moments of translation are highly contentious as translation constitutes a highly contested and politicized zone, marked by "transmission failure" (Barry, 2015, p. 416).

The pivotal point of translation is the *problematization* around which a network of relations unfolds. The *problematization* defines the entities involved and their relations. *Problematization* describes, according to Callon, "a system of alliances, or associations, between entities, thereby defining the identity and what they 'want'" (Callon, 1986, p. 206). As will be shown in the following empirical analysis, the *problematization* revolves around the transformations of dwelling in rural areas as a reason for the sharp decline of biodiversity.

Interessement is the second moment of translation. The French term *interessement* is synonymous with 'interposition' and is employed by Callon to designate the devices used to forge the associations between actors and to 'lock' them into their roles proposed in the problem resolution. "To interest other actors is to build devices which can be placed between them and all other entities who want to define their identities otherwise" (ibid., p. 208). In this sense, *interessement* is associative as well as dissociative. After a joint framing of the problem has

emerged, the question arises who does what to solve the problem. The actor whose program of action has been accepted as a legitimate framing of the state of affairs tries to assert identities, functions and roles for herself and the other actors. The other actors are supposed to be interested in their new role attributions and accept the definition of their functions. Insofar as the other actors adjust their roles and functions, already existing networks in which they are integrated begin to dissolve.

Linked to this is the question of how these roles are defined and attributed – Callon calls this third moment of translation, i.e. *enrolment:* "It designates the device by which a set of interrelated roles is defined and attributed to actors who accept them" (ibid., p. 211). The emergence of a network of alliances in the translation process is only successful, if *enrolment* is reciprocal. This entails that the translating actor, in whose interest the other entities align also takes on a new role.

Eventually, translation involves the *mobilization of allies*, the definition and negotiation of representative spokespersons as intermediaries, who express in their "own language what others say and want, why they act the way they do and how they associate with each other" (ibid., p. 223). With *mobilization*, Callon describes processes to ensure that the spokespersons for various collectives are properly able to represent those. In the following empirical analysis, the four moments of translation are discussed at the example of the LEADER project "The Green Village", which aims to, enroll and mobilize residents as "active residents", which enter into alliances to adopt specific symbolic-material practices in the management of local rural natures, such as a village green, the orchard meadow or cottage gardens.

The empirical basis of my argumentation builds on ethnographic research, carried about between August 2017 and June 2019. In August 2017, I spent two weeks in the village as part of my 'ambulatory' visits to the village investigated. As of then, I consecutively visited the village for particular events, such as taking part in the local village forum when "The Green Village" project was presented by the project coordinator and became a public matter. On these occasions, I collected empirical data by means of

participant observation, field notes and informal interviews. These were supplemented by in total seven in-depth, semi-structured interviews, conducted with local residents and neighbors of the village green, the village forum chairperson as well as the LEADER project coordinator. The interviews with residents focused on their idiosyncratic relations to the rural nature of their village, in the case of newcomers their motivations for moving to the countryside and their aspirations for shaping their everyday world environment. Interviews with formally appointed individuals and the project coordinator laid stress on the procedural aspects of the participatory approach to conserving biodiversity and rural development more broadly.

4. Case Study: "The Green Village"

The case study, which forms the basis for this article, investigates how rural residents produce, reconstruct or reshape rural natures in symbolic-material practices, and how rural natures are enacted in everyday dwelling (Müller, 2021a; Müller 2021b). It forms part of the wider GRF-funded research project "Participative Development of Rural Regions. Everyday cultural negotiations of the European Union's LEADER program", carried out at the Department of Anthropology and Folklore Studies at the University of Bonn from 2017-2021.[2] The case study aims to understand, how macro-structural landscape transformations, such as the loss of biodiversity in agricultural landscapes and rural settlements, are translated into and negotiated at the scale of regional and village politics.
To this end, I followed the implementation of the LEADER project "The Green Village" in one of the LEADER regions investigated. This low mountain range region combines natural assets and cultural heritage to follow a regional development strategy of experience-oriented tourism for

[2] https://www.kulturanthropologie.uni-bonn.de/en/dep/en/research/projects/LEADER-project/Participant-development

urban consumers, exploiting the landscape values with diverse tourist offers such as hiking, recreation and visits to the national park. The project "The Green Village" ties in with this conservation-based approach to rural development. The project description of "The Green Village" project problematizes the decline of biodiversity as related to transformations of rural dwelling:

> "From the 1970s onwards, the villages in the low mountain range region have undergone fundamental structural and settlement change. The redesign of housing and single-family house construction, together with the change in farming practices, have led to a dwindling structural wealth in the home gardens and a considerable restructuring of rural areas. The […] unmistakable character of the village community is slowly fading and with it the diversity of species and biotopes in and around the villages. A large proportion of local people have little connection to environmental issues and the possible biodiversity of their villages owing to their adapted living conditions."
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> (Project description 2017)

Given the problematization of a sharp decline of biodiversity, the project aims to re-invigorate social-ecological ties by forging villagers' capacities and knowledges in relation to local rural natures. It thus induces a collective learning approach, which Marilena Labianca with recourse to Neumeier defines as "changes of attitudes, behaviour or perceptions of a group of people joined in a network of aligned interests that, in relation to the group's horizon of experiences, lead to new and improved ways of collaborative action within the group" (Labianca, 2021, p. 26). In this specific thematic scope, the project aims to 'ecologize' local residents' practices related to their village environments in the sense of revitalizing handed down social-ecological practices, values and forms of know-how.
I accompanied the project coordinator, a woman in her late forties and trained forest educator, to implement the project in the LEADER region's villages. This site of project implementation is a village of roughly 2,500 inhabitants, which faces challenges representative of villages in the region more broadly, such as the decline of family farming, the depletion of

public services, high commuter rates and the loss of 'rural' characteristics with regard to architecture, settlement patterns and village green spaces in ongoing processes of urbanisation.
In the village, the project coordinator had already designated an area for the implementation of a biodiversity enhancement measure – transforming a village green into a low-nutrient grassland – in coordination with the municipality building and construction authority without prior consulting village representative or residents. They had decided without further ado that from now on, the village green would be mown only twice a year during spring and autumn instead of every two weeks during growing season. Removing the grass cuttings instead of mulching, the project coordinator aimed to re-establish a low nutrient, species-rich grassland. As I was told in an interview in June 2019 with a "LEADER-broker", a local council member of the Greens party in his sixties and member of a local nature conservation association, he had approached the project coordinator after having heard of the LEADER project:

"I know Elizabeth well, so we were in direct contact. And then I told her: 'Okay, we can talk about what can be done.' Elizabeth drove around here and then she immediately noticed the village green. The first idea was to do nothing at all, just to mow ways in [...] and see it no longer as a regularly mowed lawn, but simply let it grow wild a little and see what comes."

(Interview 2019b)

LEADER brokers such as the resident interviewed occupy a central position as translating agents, "it is their job to translate between the [development] agencies and the communities in order to make policies work. Brokers are characterised particularly by their function as knowledge mediators between different levels of governance." (Müller et al, 2020, p. 231). This particular LEADER broker had formerly worked as a development professional in the context of international development cooperation, implementing horticultural projects in African states. Since

he grew critical of the productivist development paradigm, he shifted his engagement as a forest and wildlife educator towards his place of residence in the village where he cultivates a permaculture garden on his premises. With "The Green Village" project, he seized the opportunity to translate the idea of biodiversity conservation into the context of the village proper.

So far, only LEADER signposts had been installed on the village green, forming an isle of 5,000 m^2 between single homes (fig. 1). Rumours had gone around regarding the background of the project and the consequences for the people living near the space, as I was told by residents I met during a two-week residency in August 2017. Some residents even considered the project an austerity measure by the municipality. During my field stay in summer 2017 preceding the project presentation in the village forum, I had the opportunity to talk to some of the residents living adjacent to the green space. A former farmer in his sixties, detailed to me that the approach of "leaving nature to itself" would not yield the objective of a low nutrient grassland, but that the soil's nutrient import had to be reduced before sowing. He was irritated of the approach adopted and recalled that, when calling upon the village representative to inform him about the project, the village representative had referred to it as "an idea from the academics at the university", expressing his view of the measure as unworldly and at odds with his professional rationality as a trained farmer.

Prior to the development intervention, the green was an everyday space of village life, used by neighbours occasionally, for example to park their cars during festivities. Through the network of the village representative, the village green was also part of recurring maintenance activities carried out by long-term residents, such as raking up the fallen leaves in autumn. In its habitual use, it did only receive particular attention when it was put into the limelight as a "Green Village Habitat" by the LEADER signposts. Up to the point of project presentation, resistance against the project had gained momentum among residents, who removed some of the signposts. In the following ethnographic vignette, I want to demonstrate how the

project coordinator of the "The Green Village" project managed to enrol and mobilize some of the residents to accept the problem definition of biodiversity decline being related to a transformation of rural dwelling.

By presenting the aims and scope of the project in the local village forum, which is an informal structure to network and cooperate in community affairs below the threshold of municipal politics, the project coordinator aimed to involve local residents in project implementation. The village forum was convened on her behalf by the local chairperson, a young retiree in his sixties and the village representative (*Ortsvorsteher*), a well-known personality and local notable. The village forum took place in the back room of a pub in October 2017. The atmosphere was friendly; participants seemed to know each other and were chatting about the designation as "Gold Village" that they had recently been awarded in the village renewal competition "Our Village has a Future". Among the sixteen participants were the elected village representative, members of civic associations and interested residents.

After a short introduction by the village forum chairperson, the project coordinator presented "The Green Village" objectives and possible measures to the audience. She problematized the loss of biodiversity in the region by pointing to the transformation of dwelling in the rural area such as the high commuter rates, the urbanisation of lifestyles and reduced capacities to engage in home gardens. She underlined her argumentation by showing pictures of "carefree" stone gardens, bereft of habitats and citing a study published on the decline of pollinators, which has caused considerable resonance as scientific proof of a sharp decrease in insect biomass earlier the same year (Hallmann et al., 2017).

Following the problematization, the project promoter turned the participants' attention to the "potentials of communal green spaces", showing pictures of wildflower meadows in the surrounding area: "These ordinary matters have to come to mind as exceptional, these wildflowers are Red List category species, you have real treasures here that are specific to the area." she calls upon the residents present. For the village green to develop into a wildflower meadow as pictured, it would need time as

such habitats are not established overnight, she hastened to add. However, for the development to realise, she invited residents to take ownership of green, "you should tailor the green according to your own needs, whether you want to place a table in the middle or adjust the routes", the most important factor being that residents considered the village green as their habitat too, she reminds the residents of their active role to play. The project promoter repeatedly emphasised the participatory approach of LEADER by stating that the ideas for and the will to implement the project should be generated by and come from the villagers themselves. In the following discussion, the project promoter called on the participants to come up with ideas.

At first, the chairperson of the village forum seized the opportunity to criticise the fact that he had not been informed prior to the commencement of the measure, thereby "putting the cart before the horse". So, for him, he stated, there was no possibility to involve residents and answer queries, which lead to an ambiguity regarding the ownership and objectives of the measure. He went on to say, "that it is of utmost importance to involve residents from now on, their participation should be pivotal and not embellishment". He wanted to look ahead and called on the project promoter to detail the next steps.

A 'newcomer', a dynamic man in his fifties who lives close to the green space, took the floor and explained that, at first, the signposts and the uncontrolled growth of weeds irritated him. However, after having been informed about the objectives, he would sponsor it and was willing to assume the coordination of civic engagement in the neighbourhood. He wanted to rally support and identify volunteers to partake in the maintenance of the space by organising a get-together for the mowing. The resident said that he understood and wanted to use the green space as a "site of connection" in the neighbourhood. The resident who acted as a LEADER broker added that he considered the project as an instrument providing "help for self-help", helping the community to conserve and capitalise on the natural environment of the village in competition with other villages. Eventually, a representative from the tourism association

dwelt on the notion of the "village habitat" and that according to his understanding, this idea encompassed also the social relations and community spaces beyond the village green itself. This view was confirmed by the project coordinator, who detailed that she also considered the diversity of community structures and life-worlds to be addressed in the idea of a "village habitat".

After the village forum, the project coordinator and I reflect on the outcome. Despite the successful enrolment of the 'newcomer' resident, she is rather ambivalent about her success of enrolling 'long-term' residents, who were not present. According to her, the village representative and the mayor presented the project as imposed by the conservation agency, recall the remark "from the people at the university" made by the village representative. Currently, the project would rather reinforce the cleavage between 'long-term residents' and 'newcomers', she feels. According to her, the engagement of 'newcomers' is not perceived and valued by long-term residents.

This ethnographic vignette from the village forum exemplifies how the village green functioned as an *interessement* device in the sense of Callon, proposing roles to be accepted or refused by the residents present. According to Callon, the point of departure for building a network of relationships is by proposing a problematization, defining the entities involved and their interrelationships. In the sense of a device of *interessement*, the village green was transformed into an obligatory passage point. Defining the nature of the problem required the actors present to converge on the relation between the degradation of rural natures, the decline of community life in the village and the transformation of dwelling. By translating biodiversity into 'natural heritage' – "you have real treasures here" – and linking it to ideas of community building, the project manager mobilized certain local residents to accept her problematization as a legitimate framing of the state of affairs. Regarding the *enrolment*, the project promoter defined the interrelated roles of entities in the course of village forum. Calling upon residents to take ownership of the meadow and adapt it to their needs, she defined the role of "active

residents". According to Gieling and Haartsen (2017, p. 580), active residents "feel responsible for the overall success of the local community and invest a substantial amount of their spare time and effort in achieving this". Active residents are expected to voice their concerns, contribute ideas and take a lead in community matters. The resident who declared that he was in favour of the project and willing to coordinate the engagement in the neighbourhood enrolled himself as an "active resident", taking up responsibility for the coordination of volunteers (Müller et al., 2020, p. 233). Demonstrating his managerial knowledge by his ability to network make connections, i.e. the knowledge required to make LEADER 'work', he is enabled to explore and forge an alliance with other like-minded residents, in this situation the resident acting as a LEADER broker.

However, as Callon points out, for the enrolment to be durable, the mobilization of allies – human and non-human – is a crucial step in the process of forming an alliance. In what follows, I demonstrate that the enrolment of active residents proved to be fragile and was subject to contestation after the initial project presentation in the village forum. I visited the village forum four months later in February 2018. In the meantime, the neighbour who had acted as active resident distributed an invitation to the neighbourhood in which he explained the objectives of the measure – while qualifying that he was not an expert at all in this regard – and requested assistance by his fellow residents:

"The initiators of the project were obviously aware that such a path does not go by itself and that the public sector often cannot raise the money to implement it. It is also the aim of the project to preserve and strengthen existing village structures. Therefore, it is planned to involve the population/residents. SO US!! It is envisaged that we will actively shape such areas and ideally preserve them ourselves. In addition, such measures improve neighbourly relations."

(Invitation, 2018)

The circular invited all neighbours to join the communal mowing event, which took place one week later. During this event and in the run-up to

the second village forum, dissatisfaction on behalf of some neighbours had grown and outright rejection of the development measure had been voiced, as I was told in preparation of the second village forum by the project coordinator. 'Long-term' residents had called upon the municipality to take over responsibility for what was happening on the village green.

Among the seventeen participants of the second village forum is the village representative, the chairperson of the village forum, the head of the municipal building authority, responsible for the maintenance of municipal green spaces as well as representatives from several village associations, among them the LEADER broker resident. The neighbour who enrolled as active resident and tried to establish himself as a spokesperson for the neighbourhood – long-term residents and newcomers alike – is not present this time. As an introduction, the head of building authority, a man in his late fifties, took the floor and proclaimed: "this project suits us well, we can score points with it against other municipalities," alluding to the positive effect "The Green Village" project had on the evaluation in the village renewal competition, for which the village was awarded a special prize.

After project presentation by the coordinator, a retired architect in his sixties and newcomer to the village, who had been involved in the community-mowing event, took the floor. He had drafted a field map for the village green, picturing what it might look like after successful redevelopment, the architect told (fig. 2). The resident confronted the municipal representative that the municipality would have to provide alternative parking slots, proper tools to do the mowing and pave the curbs around the village green in the first place as a prerequisite for the topic of biodiversity to be discussed. He considered the issue of admitted uses of primary importance, raising the question "how do I tell it to my dog lovers?".

The municipal representative tried to steer the discussion into a different direction: "You as a community of residents should make your mind up what you need and make a proposal to the municipality" he suggested

and the project coordinator added: “This is LEADER, it comes from the community of residents and will become your normal everyday life and that of the municipality”. Her role was to consult on biodiversity enhancement measures and facilitate, i.e. to establish connections and networks, she hastened to explain.

It was only towards the end of the village forum meeting that possible measures to enhance the biodiversity of the village green were discussed. When a resident offered lupine seeds for the area, the LEADER broker resident intervened: “these species do not fit in the village biotope, we want to settle rare native species her”. Another resident raised the question what should be done against weeds, such as nettle and thistle, which were already spreading rapidly on the village green and would encroach on home gardens soon. “This is what is supposed to come”, the LEADER-broker resident explained, while the project coordinator moderated “of course the green is not supposed to be a jungle of nettle and thistle, but these plants clearly perform vital ecological functions for butterflies.”

Investigating the social interactive processes in the second village forum in terms of translations, the negotiations predominantly took place between the municipality representative, the architect and the project coordinator. The ‘newcomer’ architect enrolled as active resident, drawing on his professional expertise to demonstrate his skills in field mapping and technical expertise on road and green space design. However, he did not establish himself as a representative spokesperson for the neighbours of the village green in the course of the knowledge controversy

On the one hand, he did not demonstrate the “managerial knowledge” required to enter into alliances for project implementation in the debate with the representative from the building authority, which “is made up of a variety of elements, including political knowledge about power relations among different organizational actors, alliances and key actors, and network management” (Siebert & Laschkewski, 2016, p. 168). On the other hand, as a ‘newcomer’ to the village polity, he was not able to draw on the tacit local knowledge, which Hillary Tovey describes as life-world

based and pre-discursive. It encompasses the knowledge about social relations, the ways 'things are done here' and the ability to represent oneself as a "competent member of a community" (Tovey, 2008, p. 136).
Other members of the 'community', such as 'long-term' residents did only marginally participate in the negotiations and their legitimate spokesperson, the village representative, remained silent during the entire discussion. He did not seem to have an interest to speak in the name of his silent constituency, let alone to mobilize them for the sake of "The Green Village" project
Conversely, 'newcomers', because they had no spokesperson, could speak in their own name and pursue their goals in the negotiation with the municipality. Remarkably, during the knowledge controversy, the scientific issue of biodiversity decline was shifted from its initial context, which framed the problem as a matter of dissipating socio-ecological relations to a matter of technical solutions. When 'long-term' residents participated in the knowledge controversy in the village forum, their concerns about the uncontrolled growth of weeds were displaced by the LEADER broker resident. Drawing on the bio-scientific distinction between native and non-native species, the undesired entities, here weeds such as nettle and thistle, were translated into what is desirable in the context of "The Green Village" project. Translating the village green as ecosystem, its ecological properties as habitat and feed for native species and their interrelations displaced aesthetic and moral concerns of 'long-term' residents, i.e. the perception of the village green as wilderness and danger to the prevalent cultural order.
One year later in June 2019 I visited the village to see how the green had developed and to interview the three residents, who formed a loose interest network since my last visit in February 2018. In the interviews, the LEADER-broker resident detailed his view, why all of those involved are newcomers:

"Yes, it's often the case that newcomers simply look more beyond their own noses than the generations that have always been here and who don't really want

to change much, who in principle have already changed quite a lot when I look at agriculture. Their fathers were still organic farmers, in quotation marks, and the generation that became more and more intensive, they also had problems with their parents. And if some of them come back now and, I would say, have a green touch […], there are the same problems again."

(Interview 2019a)

The following day I visit the village green. It is not a flowering meadow but resembles a brownfield (fig. 3). The resident, who tried to establish himself as a spokesperson in the first village forum has created new signs informing about the developments taking place. Together with the architect neighbour, he wanted to speed up the process of transforming the meadow into low nutrient grassland by peeling of the turf and adding 50 tons of sand. Alas, the last summer drought impeded the germination of seeds and the former meadow resembled a giant sandpit at the time of my visit. As a consequence, 'long-term' residents complained that the newcomers have transformed their village green into the biggest dog and cat toilet in the district.

Even though, the active residents who were enrolled in the alliance considered the project a failure, regretting that the village green was not able to "speak for itself" because it was "neither colourful, nor neat, but simply nothing" as one of the active residents remarked in an interview, I want to argue that the LEADER project was a 'success' in the sense of social innovation approach of LEADER. First of all, by using the village green as a device of *interessement*, the LEADER project created linkages between the 'newcomers' and provided a means of communication, through which they could explore their interests, goals and identities. By forming an alliance of the village green interest group, they diversified the local arena of the village forum. This view is detailed by one of the newcomers in the interviews I conducted in 2019:

"This [ecological modernization of villages] can only develop through the people who move here, otherwise nothing happens. They [newcomers] make the political more colourful here. So the [region] is black [conservative] by default,

since time immemorial. Nobody thinks about it. It's not a choice of reason, you do it because you have always done it. […] But these newcomers obviously bring in such impulses and that's what's missing here a little bit."

(Interview 2019b)

Even though "The Green Village" project did not yield the result of a low-nutrient grassland as envisaged by the project coordinator, it enabled 'newcomers' to translate their conceptions of rural nature into the local context of the village polity. Firstly, transforming the village green into a matter of concern, the active residents were able to negotiate their conceptions of rural natures and place their demands for ecological modernization in the local participatory arena of the village forum. The group of 'newcomers' was transformed into an obligatory passage point, which required other residents, the municipality representatives, the village representative and all other stakeholders to take their concerns seriously in this matter. They established themselves as an indispensable *obligatory passage point* in the network of social relations they concomitantly built in the village forum. In so doing, active residents became the spokespersons for the future development of the village green, displacing established representatives such as the village representative and 'long-term' residents. According to the active residents, only those who showed up and pitched in had a legitimate say. Those who did not show up were made invisible, by "watching behind their blinds what happens" as was remarked by one of the active residents in the interviews. Eventually, "The Green Village" project did not only transform the village green in its material shape, but primarily by reworking the residents' social relations.

5. Discussion

The foregoing analysis has shed light on knowledge dynamics in the framework of participative rural governance in terms of translation

processes, borrowing from the idea of translation as articulated by the Sociology of Translation. The analysis of knowledge controversies on the sustainable management of rural natures has proven fruitful on two tiers: Firstly, the idea of biodiversity, in order to be put to work in a local context, hinges upon its 'translatability' and 'connectivity' to context specific socio-material infrastructures such as the village forum. Secondly, translation occurs at the level of social relations in actor-networks, when an epistemic collective establishes itself as obligatory passage point to translate the complexity of the discourse into a relatively stable network for the circulation of knowledge to define the entities and to remake their relations. As Escobar has remarked, the hegemonic discourse of biodiversity constitutes a powerful political tool, to reorder social-ecological relations by means of models, theories, strategies and actors, which motivate "translations, transfers, travels, mediations, appropriations and subversions throughout the network" (Escobar, 1998, p. 55). Translating the idea of biodiversity into a local context engendered an idiosyncratic "cultural politics" of biodiversity, which moved scientific matters of fact to the domain of public matters of concern (Ibid., p. 54).

The analysis of the case study underlined that in the transition towards a sustainable co-management of rural natures, a multiplicity of epistemological practices and ontologies are at work, pointing to the need of translation between different "knowledge polities" (Whatmore, 2009, p. 592). In the context of the participative environmental management approach adopted in the village investigated, the integration of local and lay forms of knowledge into decision-making reordered the epistemological hierarchy regarding ways of knowing, understanding and managing rural nature. This did not only entail the status of 'external' expert knowledge of biodiversity conservation as translated by the project coordinator into the internally heterogeneous context of the village, but primarily the multiple ontologies and everyday (knowledge) practices of residents.

For the idea of biodiversity to become effective in the village context, the project coordinator translated biodiversity as 'natural heritage', thereby

opening up its conservation to claims of ownership by local residents. The matter-of-factness of biodiversity decline in rural areas, established in bio-scientific expert knowledge practices such as the cited study on insect biomass decline, was translated into a matter of concern, unclosed to contestation and induced a redistribution of expertise. While none of the residents cast doubt on the factuality of biodiversity decline as such in the social interactive processes of the village forum or the interviews conducted, the responses to ameliorate the rural nature of their village differed considerably. The process protection paradigm of "leaving nature to itself" and to protect typical endemic species, promoted by the project coordinator and the LEADER broker resident was contested by 'newcomers' and 'long-term' residents alike. While 'long-term' residents' concerns revolved around a perceived threat of wild-growing weeds to their home gardens and entrenched cultural norms of village life, 'newcomer' active residents expressively welcomed the window of opportunity to reorder the social-ecological relations opened by "The Green Village" project. In order to be recognized as knowledgeable subjects in relation to their environment, 'newcomers' formed an epistemic alliance that sought to actively re-shape the rural nature of their village. This could not have been achieved by letting the village green develop its ecological potential by itself. As was detailed at lengths in the interviews, 'newcomers' stressed their expertise and skills with regard to garden design, which they considered to be at odds with the idea of 're-wilding' the meadow. The village green was thus a resource to make visible their expertise and extend their authority on the management of rural natures beyond home gardening. Eventually, this came at the cost of displacing and excluding other understandings rural natures, such as those of 'long-term' residents.

6. Conclusion

What can be learned from all of this regarding participative resource management in the context of rural governance against the backdrop of ideal-type notions of knowledge co-production? Who can contribute what kind of knowledge at which stages of the development process? Integrating the stakeholders affected in co-management aimed to increase the relevance and understanding of the 'problem' of biodiversity decline in rural areas, thereby creating ownership and legitimacy of the solutions adopted, enhancing their impacts and sustainability. In the case study investigated, knowledge co-production induced the displacement of certain world-views, rationalities, practices and knowledge types, while other gained greater authority with regard to the management of local rural natures. The findings point to a revaluation of knowledge types in the context of participative arenas of rural governance.

Firstly, the relevance of bio-scientific expert knowledge of biodiversity conservation, while being authoritative in the phase of problematization, gradually decreased in the translation process from the initial moment of defining problem relevance.

With increasing stakeholder involvement, integrating heterogeneous, context-specific knowledge types, i.e. local and lay forms of knowledge, the power of development experts such as the LEADER project coordinator to define the objectives of the development intervention decreased and they became subject to obstinate reinterpretation on behalf of active residents. Secondly, the problematization of biodiversity decline and its relation to the obliteration of traditional forms of social village life underwent a problem transformation and was subject to divergent translations by different groups of stakeholders as entails the possible courses of action. While 'long-term' residents called upon traditional institutions of legitimate representation such as the village representative or municipal authorities to take action on their behalf, 'newcomers' directly exercised their agency in the village forum in such a way to induce a social-ecological transformation process in the desired direction.

As regards knowledge types, the experiential knowledge of 'long-term' residents was devalued vis-à-vis the transformational knowledge employed by 'newcomers' as a means to autonomously make and implement decisions in arenas of rural participative governance. The diverging abilities of local residents to call into play their heterogeneous knowledge systems, points to a need for further research on the interface of knowledge dynamics and power relations in the context of participative arenas of rural governance.

Acknowledgements

I thank the anonymous reviewer for the careful reading of the manuscript, the helpful comments and the important advice given, which helped me to improve the manuscript.

Availability of data and materials

The anonymised data that support the findings of this study are available on request from the corresponding author, Oliver Müller. The data are not publicly available due to ethical reasons, their containing information that could compromise the privacy of research participants.

Funding

The research project "Participative development of rural regions. Everyday cultural negotiations of the European Union's LEADER programme" is funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – 322783243.

Authors' contributions

In the course of conceptual and analytical data interpretation workshops at the department of Cultural Anthropology and Folklore Studies, my colleagues Sina Wohlgemuth and Prof. Dr. Ove Sutter contributed to the analysis of the results.

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