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CO-PRODUCING KNOWLEDGE

Reflections from a community-based participatory research project on caring communities to strengthen ageing in place

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Introduction

In the bulk of ageing research, roles between research subjects and researchers are incisive and coined by distinctive power imbalances (Chen et al., 2020). Participatory research approaches strive to balance power asymmetries by valuing diverse sets of expertise and shared decision-making. To value diverse sets of expertise, older adults are involved as co-researchers, i.e. as active partners collaborating with academic researchers in generating and disseminating new knowledge. This shifts the operational modus from an "extractive and analytical approach to a more managing, collaborative and action-orientated approach" (Mey & van Hoven, 2019, p. 324). Furthermore, it gives way to what Gibbons et al. (1994) have named the mode 2 of knowledge production, i.e. a way of generating new insights that draws on and benefits from a multi-directional flow of information and inspiration between society and science.

Today, a variety of configurations is labelled as participatory research. Approaches range from involving people as research subjects to people-led research. Common to all participatory approaches that involve non-scientific persons as co-researchers is their focus on establishing equal research partnerships to co-create knowledge and action. The aspiration is to bring together diverse perspectives and sets of knowledge during the research process with the requirement that all groups affected by the research project come together on an equal footing and that all voices are acknowledged. Participatory research collaboration between academic and non-academic partners requires a high degree of reflection regarding possible knowledge and power asymmetries, interpretive authority, and ownership throughout the entire research process, from designing the study to dissemination and implementation of findings.

Fostering empowerment of the co-researchers through learning processes and competence building is another aspect common to the various participatory approaches (James & Buffel, 2022). A third element that characterizes many participatory approaches is the combination of gaining knowledge and developing local interventions to improve

living conditions within the communities of practice involved, as is particularly pursued in approaches to health-related community-based participatory research (von Unger, 2014; Wallerstein et al., 2018b).

With respect to knowledge generation, a dichotomous view of knowledge domains is prevalent. Academic researchers are usually seen as the embodiment of scientific methodological and theoretical knowledge whereas co-researchers are seen as the bearers of experiential knowledge. The common claim in participatory research is to integrate the two sets of knowledge (Behrisch & Wright, 2018). However, we know little about how this integration is (successfully) performed. Few studies provide accounts on how the co-construction of new knowledge unfolds in the respective research phases (James & Buffel, 2022; but see: Bratteteig & Wagner, 2012; Muhammad et al., 2015; Silberberg et al., 2021). This is particularly true for participatory data analysis (but see: Clarke et al., 2018; Flicker & Nixon, 2015; Frisby et al., 2005; Gillard et al., 2012; Pelz et al., 2004; Schaefer et al., 2019).

This paper contributes to closing this gap by providing reflections on the unfolding of co-constructing knowledge in a three-year-long community-building participatory research project to initiate and develop a caring community for the support of older people with care needs in a peri-urban commune in Switzerland. The local partners include representatives of the administration, employees of a non-profit professional home-care provider, and older residents of the village. Our findings provide a nuanced picture on how various sets of knowledges are distributed within the research team and the conditions facilitating the articulation and valuation of specific sets of knowledge.

In the next section, we position participatory research as the establishment of equal research partnerships for which the integration of various sets of knowledge is essential. We introduce the types of knowledge discussed in participatory research literature (Part 2 of this chapter), and set the scene by briefly introducing the project and community (Part 3), and provide an overview of how the collaboration evolved (Part 4). Part 5 elaborates on three exemplary moments of cooperation in the research process to explore how various sets of knowledge surfaced, lingered, clashed, and merged. In Part 6, we synthesize our findings by defining two forms of collaboration: division of tasks and mingling of different sets of knowledge. We conclude (Part 7) by suggesting three issues that merit further attention to advance the field of participatory ageing research: (a) further differentiate types of knowledge and the translation work performed to integrate them, (b) developing a more contingent and precise understanding of roles in research process, and (c) examining the complex positionalities of citizen researchers in more detail.

Partnerships in research

Participatory research is not a coherent body of research practice. It consists of diverse schools and traditions, even just within the field of ageing studies (James & Buffel, 2022) and health research (Andersson, 2018; von Peter et al., 2020). It is a somewhat unreserved umbrella term. One common ground unites participatory research from various backgrounds and fields: "research should be in respectful partnership *with* people; it is not *on*, *for*, or *about* people" (Andersson, 2018, p. 154; original emphasis).

Yet, there is no consensus (or control) about the kind and scope of involvement required to qualify as participatory. Wright et al. (2013) differentiate between participatory research as a *method* and as an *approach* or *style*.[1] Participation as a research method implies endowing study participants with a more active role in research, beyond the provision of

information (Wright et al., 2013). The overall aim of participation as a research *method* is to improve the quality of research. Control over who participates in which research phases or tasks usually remains with scholars or funders (Wright et al., 2013). Participation as a research approach, in contrast, applies participation as a critical principle in all stages of the research process (Bergold & Thomas, 2012; Hartung et al., 2020; Mey & van Hoven, 2019; Wright et al., 2013). Therefore, control over the process of participation is understood as a shared responsibility; it cannot be pre-defined or controlled by academic researchers, solely (Wright et al., 2013).

Research, hence, is the product of an equal partnership, i.e. between partners that are different, yet meet on equal footing. But how is such a partnership achieved and practiced? And what does it take to qualify it as equal? The distinction between collaboration and co-production as elaborated by Williams et al. (2020) is productive here:

> While collaborative (as opposed to co-produced) research may increase knowledge translation and uptake, it does not necessarily share the aim of making the conception of delivery of such research or services – or indeed the design process – more egalitarian, democratic or transparent.
>
> *(William et al., 2020, p. 3)*

In other words, co-production is a form of collaboration in which all involved partners have a say in defining premises, goals, conditions, and processes of the research.[2] Accordingly, key prerequisites to effectively co-produce knowledge are: valuing diverse knowledges, a readiness for mutual learning, sensitivity for shifting positionalities, and an aspiration to balance power asymmetries.

Integrating diverse sets of knowledge

One prominent tactic – or rather requirement – to work towards equal partnerships in participatory research is to see and treat co-researchers as *experts* contributing to the production of knowledge by bringing in sets of knowledge academics might lack. This requires to recognize and work with "multiple ways of knowing" and with "multiple expressions of knowing" (Wallerstein & Duran, 2018, p. 22).

There are various typologies of knowledge. Behrisch and Wright (2018) differentiate between scientific, professional[3], and everyday life knowledge. Others distinguish experiential knowledge (Chen et al., 2020; Gillard et al., 2021; Silberberg et al., 2021) and contextual or local knowledge (Cornwall & Jewkes, 1995). Experiential knowledge can be situated in the field of everyday life or professional practice. Contextual knowledge might include geographical and historical knowledge about places and communities, their evolution, and spatial, social, and political organization. Another set of knowledge referring to the social organization of a place or community is identified as relational knowledge. Figure 30.1 provides an overview of these various sets of knowledge and how they relate to each other.

Differences between sets of knowledge are gradual, rather than categorical; Behrisch and Wright (2018) suggest understanding various sets of knowledge as facets of a continuum (grey area in Figure 30.1). Knowledge that is general and abstract is located at one end of a continuum. It consists of ideas, principles, and concepts and is generated through rational reasoning, conceptual thinking, and in distance to action. Knowledge that is contextual and situational, rich in detail, and concrete is located at the other end of the continuum.
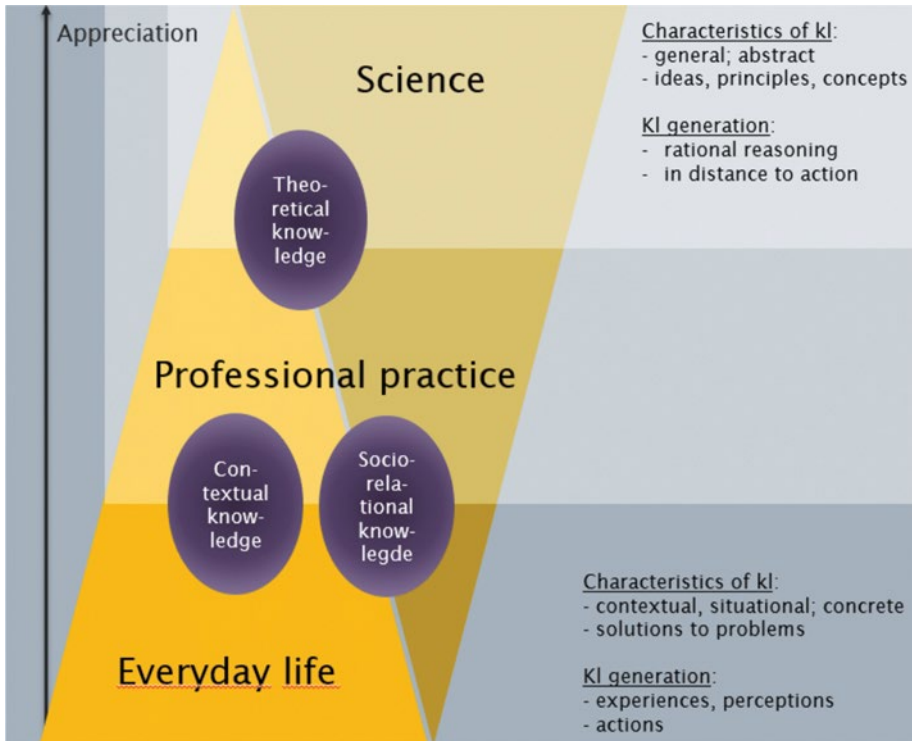
Figure 30.1 Order of sets of knowledge. Illustration based on Behrisch and Wright (2018)

It is "generated in the immediate pressure to act and make decisions" (Behrisch & Wright, 2018, p. 310; translation: hk), i.e. it is produced through (inter-)actions and making and processing experiences.

Participatory research as an approach aspires to integrate knowledge from everyday life, professional practice, and science. Integrating implies bringing the various sets of knowledge into fruitful discussion with each other to co-create novel insights, rather than simply adding and stacking packages of information (Behrisch & Wright, 2018). Yet, connecting various sets of knowledge is challenging.

Challenges to integration: comprehension and hierarchies

Communication is a hurdle. Different sets of knowledge follow different rationales, priorities, and structures. Many voices communicate in different "languages". How can they comprehend each other? – By identifying a common project, defining a common purpose worth investing the effort to learn from the other and co-create a shared "language". Such a project or purpose needs to be situated at the intersection of respective fields, i.e. it must be relevant in everyday life, professional practice, and science to gain the attention and support from representatives of all fields. Star and Griesemer (Star & Griesemer, 1989) work with the notion of "boundary objects" for things or ideas that bear the potential of connecting unconnected fields. Research can work as such a boundary object (Wöhrer & Höcher, 2012; cit. in: Behrisch & Wright 2018, p. 313).

Hierarchy is another hurdle. When researchers make the claim to equally value all sets of knowledge, they work against a common logic. Since the dawn of the modern age, more abstract and general sets of knowledge are ranked top, while other-than-scientific knowledge is devalued; experiential knowledge is viewed as an area to apply scientific knowledge, rather than a (decent) source of knowledge production (Behrisch & Wright, 2018). This modern age – or mode 1 (Gibbons et al., 1994) – production of knowledge is characterized by the clear separation of the spheres of science and society, with knowledge flowing top-down, from science to society, but not the other way. Hierarchy and separation are hurdles because non-academics have been alienated from research. The task of participatory research is to bring people, and professional and everyday life experiences, back in.

Project context: developing caring communities to improve ageing in place

The project Caring Community Living Labs (CareComLabs) is part of the Swiss National Research Programme (NRP) 74 "Smarter Health Care" funded by the Swiss National Science Foundation (SNSF).[4] The project combines the concept of caring communities (Wegleitner & Schuchter, 2018) with the community-based participatory research approach to foster ageing in place. Two Swiss research organizations and a German university partner with four municipalities in German-speaking Switzerland to initialize and develop interventions. The overall research plan consists of the following three phases: (a) exploring and documenting (unmet) care needs, (b) developing and implementing interventions and (c) evaluating and improving interventions.

Community-based participatory research (CBPR) to initiate caring communities: community-building participatory research

The objective of CBPR is to work with communities to explore health-related problems relevant to the community and develop actions to respond to these problems (von Unger, 2014, p. 30). Like other participatory approaches, CBPR is an *orientation* towards research, rather than a research method (Wallerstein et al., 2018a). CBPR is

> A collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each brings. It begins with a research topic of importance to the community with the aim of combining knowledge and action for social change to improve community health and eliminate health disparities.
>
> *(W.K. Kellogg Foundation Community Health Scholars Program, 2001;*
> *cit. in: Wallerstein et al., 2018a, p. 3)*

In each commune, the community we are working with comprises different members, usually including volunteers and local representatives of non-profit organizations and political authorities. Each of these communities has been developing a different approach to (a) explore the status quo, (b) identify a call for action and (c) evaluate and improve their initiatives. As we were initiating the communities to work with, rather than approaching existing communities as common in CBPR, we suggest calling our approach community-*building* participatory research.

Case study: Bachdorf caring community

In this chapter, we focus on Bachdorf.[5] Out of all participating communes, Bachdorf Caring Community puts the most emphasis on the production of knowledge. Bachdorf is a typical Swiss peri-urban commune. With close to 6,000 inhabitants, it is situated close[6] to the city in an agriculturally dominated landscape. There are two restaurants and more than 25 associations. An Age Commission is part of the political structure. It consists of representatives of non-profit organizations (social, health, and spiritual care) and volunteers.

In Bachdorf, a joint research and implementation project has been evolving over three years at the time of writing. In this chapter, we consider the first two years of the collaboration. We retrospectively reflect on the events, processes, activities, and developments of the project, drawing on proceedings and field journals (47 protocols). Over a period of three years, more than 55 exchanges[7] took place in which academic and citizen researchers participated. In the analysis, we explore which different sets of knowledge emerge in moments of cooperation and how they interact.

In the next part, we describe how the partnership between people in Bachdorf and academic researchers has been evolving and then analyze how various kinds of knowledge have been cooperating in the joint effort to develop a caring community. In the subsequent part, we elaborate on exemplary moments of cooperation discussing the interactions between contextual, experiential, and scientific knowledge.

Evolving partnerships with Bachdorf caring community

How did the research partnership in Bachdorf evolve? It is a story of a research project moving step-by-step towards involving the public, from representational to partial public participation. These are the major stations on the journey.

Academy-led development of a joint project proposal with communes

Academic researchers developed the overall research idea and an action research plan to initiate, develop and evaluate caring communities in selected pilot communes deploying a CBPR design. They invited professional non-profit home-care providers in three regions as partners. In the case of Bachdorf, a borough health councillor joined as partner, too. The research proposal was submitted to SNSF and approved.

First steps of assembling local allies: the kick-off meeting

With the councillor in the lead to invite people, academic researchers, and local partners organized a first meeting in the mayor's office. The councillor invited people she had been knowing for their engagement in the village, among others in the Age Commission. It resulted in the formation of a project team comprising of the academic researchers, the counsillor, and local volunteer residents. Those were three female representatives of the Age Commission, all retired, and living in Bachdorf since many decades. In addition, a male retired IT manager, strongly interested in research activities, joined the group. All volunteered in other organizations, too. With the academics preparing a presentation on the project ideas and the suggested methodological approach in CBPR, the counsillor connected to the suggested research ideas through her professional interest. She mobilized the group of residents based on her practical access to those persons. Most importantly, she provided a

leap of trust to the local participants by demonstrating that the project enjoys the government's full support.

The initial projection of the research idea of building caring communities stimulated intensive discussions to which the local participants contributed by reflecting their experiences as older adults living in the commune as well as their experiences of volunteering for the commune. Scientific concepts were well received by the group and successively connected to personal experiences and the local context.

Creating larger awareness of the project and gaining more allies

In the kick-off meeting, the group decided to present the project idea to the public to create larger awareness and to find more participants. To organize this public event, the group developed a workflow in two further meetings. At this point, the lead for deploying the sub-tasks of the workflow (organization and content) lay mainly with the counsillor and the academic researchers, while citizens provided feedback and support. Academics contributed with ideas for the organization of the event, such as the event format, and took the lead in collaborative developing material for publicity work. First suggestions for a newspaper text and a logo were presented and successively refined in joint discussions with the group.

The event programme included two parts: an information part with project presentation by the counsillor and the academic researchers and an interactive part with three thematic workshops, each led by teams with one academic researcher and one local group member. The roles in those partnerships were specifically distributed: the researchers took the main responsibility of the organization and deployment of the workshops, with their knowledge of methods of how to stimulate interactivity and discussion. The local partners' role at that point focused on trust building as a local representative who had approved the project ideas. In fact, they acted as boundary-spanners to the wider local public. With more than 80 visitors, the event was perceived as a great success by all team members.

Preparing and conducting a qualitative interview study with local citizen researchers

Seven people had finally formed a research group with two academic researchers. This included the four local people from the initial meeting as well as three new members: two women in their 50ies, one working in an IT company, the other a mental health professional in a double role, both as interested citizen as well as a representative of the home-care provider. In addition, a male retired teacher and consultant joined the group. Another couple was present at the training sessions but could not participate in the interview series due to family commitments. The counsillor had temporarily pulled out due to her workload and wanted to rejoin the analysis sessions later (but did not because she had accepted another demanding job in the meantime).

The seven local citizen researchers were all very keen to participate intensively in the interview study and to carry out all the steps from interview planning, preparing, and conducting to data analysis. They agreed to meet on-site every two weeks. The organization of the meeting room and amenities was soon handed over from the commune to a member of the group who participates in other organizations and is adept with the local facilities and organizational requirements.

The academics were faced with the challenging task of breaking down complex knowledge about qualitative research to the needs of the group, to dock on to their knowledge and experience and at the same time not to lose sight of quality assurance. The engagement with the methodology also had to be appealing and meaningful for the participants. A training programme was developed that closely connected to the development of the study design and procedure. Topics included an introduction to scientific, particularly qualitative, research and interactive sessions on co-developing the research question; the interview guide; informed consent form; (convenience) sampling; pre- and post-interview checklists; technical details, such as operating the recording equipment. Altogether, 21 interviews were conducted and transcribed by citizen scientists. The analysis workshops took part on-site as well as via Zoom due to the following COVID-19 lockdowns.

On including contextual, experiential, and scientific knowledge: cooperation and tension

How did various types of knowledge cooperate during the project? In this part of the chapter, we shed light on exemplary moments of cooperation along the joint research. We learned from this process that identifying different types of knowledge is not as straightforward as imagined; many things overlap and concur.

Adapting the research question based on contextual knowledge

In the workshop on developing the research question, a discussion arose about the right focus. While discussing the concept of caring communities, citizen researchers' personal experiences yielded aspects that academic researchers had not included in their initial portray of the concept. Citizen researchers expanded the project's initial foci on older people and on comprehensive care needs. Regarding the target group of older people, citizen researchers highlighted that younger generations, too, need support such as with childcare, housekeeping, and gardening. They emphasized the relevance of the latter for Bachdorf, a commune consisting of high portion of houses with gardens. Regarding care needs, citizen researchers highlighted that this is a sensitive issue that older adults in Bachdorf might not feel comfortable to talk about:

> You focus on the older adults and the need for care. But we know that people find it difficult to talk about their problems and it could be unpleasant for us to point them out so directly. Besides, we also want to research more cultural and social needs, shouldn't we put the need for care on the back burner?
>
> *(Anna, 14.11.2019)*

This quote expresses a citizen researcher's worry: A study with a focus on older adults' care needs in Bachdorf might not be feasible. If people are not willing to talk about a key topic, no insights can be gained. Additionally, citizen researchers voiced their own unease in addressing sensitive issues as interviewers.

As a result of this discussion, the research question was jointly defined as follows: What is the living situation of people with presumed need for help? The group deemed this rather broad research question as productive for two reasons: (1) Chances to facilitate interviews

in the first place are intact, while including the opportunity to advance to more sensitive issues during the interview. (2) The question includes adults of all ages and various fields of support. The defined research question hence is adapted to the local context and responds to co-researchers' interests and competences. Citizen researchers expressed that with this question, they felt confident to succeed in conducting a study in Bachdorf.

Academic researchers deemed the broadening of the scope necessary to advance the project in Bachdorf. While adaptions of research foci were generally in line with the participatory research design, there clearly were limits on how far we could divert; (responses to) care needs could not be abandoned as a focus. The defined research question clearly includes this focus. However, it also allows addressing it marginally, only. Therefore, for academic researchers the defined research question entailed the risk of not yielding the quality of data they considered necessary.

Two things helped us tackling this risk. First, systematic sampling: At the beginning, citizen researchers recruited people they knew as study participants (convenience sampling). The initial analysis of first interviews showed that informants were healthy and fit and had little support needs leading to the preliminary conclusion that people in Bachdorf basically are fine. Interviews indicated that informants' health status was related to their financial stability and good housing conditions. It was clear to everyone in the group that not all residents in Bachdorf are wealthy, have a garden and their own house, and that there indeed are people receiving care and that we hence needed to systematically diversify the sampling to achieve the full picture. The sample was complemented with people who depend on caregivers or do not speak the local language.

The second thing that effectively helped us tackle the risk of compromised data quality was citizen researchers' competences. Some citizen researchers were experienced in addressing sensitive issues with strangers or loosely acquainted people based on their professional or volunteering work and successfully did so during the interviews. We assume that these citizen researchers did not share the concern of addressing sensitive issues with study participants expressed when defining the research focus and question. But the disagreement did not surface in the discussion. As a result, academic researchers learned about these competences later, only (see Part 5.2).

"People don't talk about money" – handling sensitive questions in interviews

Citizen researchers consider the need for care, personal hygiene, and financial issues as sensitive issues they find difficult to address in interviews. This became obvious while developing the interview guide. *"You don't talk about money, especially not in Switzerland"*, was a clear opinion of some citizen researchers. A similar reluctance appeared regarding personal body-related topics. However, this time, disagreement surfaced from citizen researchers who are experienced in addressing sensitive issues. *"I manage asking: 'How do you keep up with personal hygiene? Can you still do everything by yourself?'"* (Silke, 14.01.2020).

As the discussion proceeded, strategies became apparent from the more hesitant individuals: on the one hand, Eduard reported from his first interview during the evaluation session with an older couple that he was surprised: *"I was highly uncomfortable with the financial question, so I first asked if I could ask this question at all. But the gentleman answered quite openly and made it easy for me with his announcement: 'Just ask me!'"*.

Eduard assumed a connection between the interviewee's openness and the successfully established rapport in the preparation for the interview. *"In the preliminary telephone conversation, we had already found the first common ground. My interview partner, just like me, for many years during his professional life just slept in Bachdorf, and paid taxes"*. (Eduard, 16.07.2020).

Walter tackled his unease with addressing sensitive issue by handing over control over the issues addressed to the interviewee. Following an ad-hoc idea, he created a card deck with the interview questions. In the interview, he spread it out on the table and the interviewee could see all questions and pick the questions she/he wanted to discuss. This tactic helped Walter to not feel intrusive, while not presuming a taboo where there might be none. In so doing, he maximized the scope of topics for him.

These discussions about appropriate questions suggest that relational and contextual knowledge work both as an advantage and as a disadvantage: It is an advantage that the citizen researchers' contextual knowledge informs the direction of the study; it ensures that the focus of the study is relevant for this community and sensitive to local culture (i.e. do's and don'ts). And citizen researchers' relational knowledge clearly was supportive in recruiting study participants and establishing rapport.

Contextual knowledge, however, simultaneously complicated citizen researchers' role and capacity to obtain information. An interviewer needs to elicit information, in our case, including on sensitive issues. This is a challenging task, even for experienced academic researchers. Discomfort with sensitive questions might be addressed with adequate training. This is the common solution suggested in literature. But unease might last, despite education and training. To date, there is little in literature that would help us here.

As a retrospective reflection, we conclude that this situation would have merited more attention from academic researchers' side. Even though there is little guidance from literature, we could have worked on options. We could have offered more or different training, and/or we could have worked on strategies together. We could have opened more space for mutual inspiration and discussed the pros and cons of tactics. But foremost, we could have looked more closely into the discomfort. Why have we not done so? First, there was time pressure. We were behind schedule, and we felt that we needed to move on. Second, we wanted to take citizen researchers' inputs and concerns seriously. We viewed this as an essential part of sticking to participatory principles. Accepting these concerns appeared as the only option, then. Many months later, we think that we should have worked with the various concerns: of asking sensitive questions, and of not asking them. And we might have worked out better solutions without compromising participatory principles. And we certainly take this with us as a lesson learnt to the next study. Taking time for reflection, even when there seems to be no time, will be productive.

Relational knowledge added further complications. In our case, citizen researchers live in the community they research. This proximity implies that, contrary to academic researchers, citizen researchers are in the field before and remain there after fieldwork; relationships precede and proceed, they have a history and a future. This both supports data collection (and analysis) and limits it. While providing further information beyond the interview, it might also narrow the field of questions deemed appropriate. Furthermore, information citizen researchers obtain might complicate future interactions. In everyday life, citizen researchers might feel not entitled to the information they have received as researchers and find it difficult to handle the information entrusted with them.

"Is this still scientific now?"

"You are the professionals, and we have to learn from you first"

(Eduard, 14.11.2019)

The citizen researchers expressed a pronounced interest in obtaining scientific, especially methodological "correct" knowledge for the study to be conducted. Since most of them were familiar with quantitative studies in different ways due to their (previous) professional activity, they were eager to learn about qualitative research. Academic researchers handed out training materials at the beginning. These were duly read and brought to all workshops. Citizen researchers understood producing relevant and reliable results as a top priority.

Accordingly, the reliability of data was vividly debated. A particularly significant situation arose in one of the first analysis workshops. A theme in an interview text sparked intensive discussions in the group during a data interpretation workshop. Some citizen researchers shared their own experiences. At some point, Anna intervened: *"We want to work scientifically and analyze the interview texts. Don't talk so much about yourselves all the time!"*(Anna, 16.07.2020).

For Anna, the intensive discussion of the text passages and their enrichment with own experiences of group members did not seem appropriate. She blocked it and disqualified it as knowledge irrelevant for analysis. The academic researchers, in contrast, found the discussion rich and constructive, generating further data. This created a tension that had to be negotiated.

The situation presented above revealed a phenomenon of co-production that probably occurs frequently in participatory research but has barely been described. Bergold and Thomas (2012) identify two typical modes of co-production of knowledge: on the one hand, when academic researchers work together with professional practitioners and, on the other hand, in the work of academics with groups directly affected by the research. In our project, experiential knowledge placed citizen researchers in between: Some of them represent knowledge areas of the target group, as they themselves are older residents of the community, or as some of them have professional knowledge, which they have acquired either in professional or voluntary work. Here, the frequently mentioned duality in participatory research is broken down and produces a special configuration of knowledge for which further examination of good strategies for raising this special format of knowledge in participatory analysis settings is needed.

Academic researchers responded with methodological reflections to convince sceptics of the validity of the procedure. Simultaneously, they also looked for a practical solution to address the concerns. The following solution was jointly developed: to mark the group's own experiences, to separate them from the text interpretations, and to include them later in the process.

A similar example: Eduard mentioned that he had forgotten to ask some questions during the interview. As some other citizen researchers also knew his interview partner, they contributed additional information. This was, however, vehemently rejected by Walter saying: *"That's village gossip, but we'd better refrain from that here in the group"*(Walter, 16.07.2020). Again, relational knowledge is introduced and then disqualified. This leads to the more general question of which knowledge is deemed reliable. Two decisive factors come here into play. First, the context of expression. An interview is a confidential situation created especially for this purpose. A street in contrast is a public sphere. Information

provided in public is expected to travel and for this very reason of doubtable validity. Second, the question of representation. Is somebody providing information on her-/himself or on someone else? Walter denies the latter the authority to speak the truth while deeming interviewees' responses as true. This might mirror common sense. However, scholars have highlighted the intricate nature of truth, particularly in interview situations.[8]

Precis: two forms of cooperation

We identify two forms of collaboration between different sets of knowledge in our research partnership: (a) working in parallel on well-defined and clearly assigned tasks and (b) getting into each other to create novel solutions. Both occur as a tactic to achieve a joint goal.

Sets of knowledge working in parallel to achieve a common goal

In some moments of collaboration, tasks were identified and divided among the group members according to their expertise and capacity. Here, different sets of knowledge operated alongside each other. There was no need for translation between the various sets of knowledge because they worked independently, and because there was a shared understanding within the group regarding who would be best equipped with knowledge and resources to complete the task.

Mobilizing allies is an example of various sets of knowledge working in parallel. One citizen researcher organizes the event venue using her contextual knowledge on local facilities and how to access them, another personally invites people using relational knowledge and her position as a political leader, and academic researchers prepare the project introduction using their conceptual and factual knowledge on the topic. It is noteworthy that both academic and citizen researchers benefit from each other to win the interest and trust of the public. Academics profit because practically, it would be laborious to find convenient venues without local support. Academics profit ideologically, too. Citizen researchers work as a warrant and provide credibility. Their presence signals: "This is a local initiative, it concerns us". Similarly, the presence of academics, helps citizen researchers to raise interest and again provide credibility: "This is a serious and professional initiative". Hence, while not touching and altering each other, different sets of knowledge mutually support each other; they join forces to achieve a common goal.

Melding of different sets of knowledge to achieve a common goal

In other – indeed, most – moments of collaboration, various sets of knowledge melded in working towards a joint goal. The melding often was prompted by a request for clarification, or completion, a manifested irritation, an articulated doubt, or discomfort, in other words by an expression of some sort of disagreement with what had been said before. The expressed unease with asking intimate questions when developing the interview guide and the questioning of the value of personal experiences while analyzing data are two examples. These moments required translation and negotiation because not everyone in the room shared the same understanding of the process in question. Here, sets of knowledge touch each other. As a result, individual knowledge is being transformed.

It is important to note that the articulation of some sort of disagreement sparked, indeed facilitated that different sets of knowledge emerged and engaged with each other. In fact,

if there are no tensions, there is no variety of perspectives in the room, or no opportunity where differing views could emerge, such as when people do not feel safe to suggest other views. Therefore, in participatory research, irritation is productive; it is a welcome trouble-maker. The trouble irritation causes elicits knowledge that otherwise would remain tacit.

Hence, we suggest being passionate and considerate about irritations. How can we cultivate divergence, prompt manifestations of disagreement? But of course, we need to be ready to do the translation work. This requires explaining ourselves. It requires listening to others and *working* towards comprehension. In the presented cases, the engagement resulted in solutions that integrate knowledge from various sources. The interview questions card deck is such an invention; it combines the scientific requirement to ask sensitive questions with the reservation based on relational proximity. The questioning of the value of experiential knowledge for data analysis is another example. It is in such moments of cooperation that academic researchers learned most.[9]

Coda

In this study, people were involved as citizen researchers along the entire research process. Most citizen researchers were older adults, though not all. Within the group of older adults, we have included rather privileged individuals. They all are able-bodied and -minded, well-educated, middle-class, and most are well-networked in the commune. Therefore, Mey and van Hoven's (2019) cautionary remark that involved citizen researchers might represent a rather privileged group, applies to this study. Accordingly, the variety of perspectives integrated is not as diverse as we aspired it to be. Diversity regarding the *types* of knowledge is represented: Experiential, contextual, relational, methodological, factual, and conceptual knowledge cooperated in this project to achieve joint goals. But the sources of knowledge represent relatively privileged positions in society. Therefore, regarding the *content* of knowledge, diversity is limited.

Based on the reflections on our own research partnership as well as existing literature, we suggest three observations as issues that merit further exploration. First, further differentiating types of knowledge to provide a more nuanced analytical lens. Literature generally differentiates between experiential and/or contextual knowledge and scientific knowledge. Our analysis would have benefitted from a more nuanced understanding of different kinds of knowledge as a lens to look at our data. Nevertheless, our findings indicate that valuing various sets of knowledge in research partnership implies translation work from all involved parties. We suggest that creating or looking out for boundary objects and cooperative moments during the research project and together with citizen researchers as promising tactics.

Second, developing a more variegated, contingent, and precise understanding of roles in research process. Although there is a continuum rather than a crisp distinction between various sets of knowledge, different sets of knowledge commonly are clearly assigned to people: abstract knowledge to academics, contextual factual and procedural knowledge to professionals and everyday knowledge based on personal experience to citizens. Representatives of these groups are positioned within respective fields: academia, profession, and everyday life. But people hold myriad sets of knowledge, and some transect fields. The clear assignment impedes the emergence of some sets of knowledge. In our case: Academic

researchers were reluctant to share their experience-based knowledge, leaving that field to citizen researchers. Vice versa, citizen researchers might hold conceptual knowledge back to not interfere with academics' expertise.

Third, examining the complex positionalities of citizen researchers. It is commonly distinguished between academic and citizen researchers and their relationship is discussed (e.g. Silberberg et al., 2021). The relationship of citizen researchers with other citizens usually is portrayed as an asset and source of knowledge from which the project benefits. This chapter indicates that the story is more complicated. Citizen researchers' entanglement with the local community might also complicate research. Proximity can be prohibitive for sensitive questions. Furthermore, citizen researchers must handle the information gained in confidential interviews in everyday situations. The acquired information travels with them into situations where it is deemed to not belong.

The chapter indicates that research is not just about thinking, reflecting, pondering, conceptualizing, and developing theories and graphs. Research involves a lot of relational as well as organizational, practical, and hands-on work that shapes the research team and its activities. Scholars agree that in research and even more in participatory research, how things are arranged, organized, articulated, conducted has a great influence on who is how when in what roles included. In Tickett's words: "the specific meaning of community involvement depends on the details on how it is enacted" (Trickett, 2011, p. 1353). Yet, few accounts documenting and reflecting on the practicalities of participatory research exist. Participatory research is well positioned to create momentum for a move from mode 1 to mode 2 production of knowledge, i.e. for a production of new knowledge in which inspiration and information circulate between science and society, rather than flowing unidirectionally, only. But to tap this potential we need to unpack the complex *doing* of co-producing knowledge. On the level of the everyday conceptual, practical, relational work of participatory research, literature provides little guidance on how to effectively integrate various sets of knowledge to the benefit of all involved parties and the project objective, or on how to negotiate positionalities in a way that empowers individuals and the community, or on how to work through situations in which participatory principles appear to contradict scientific quality criteria. The currently re-arising interest in participatory approaches shall be used to spark mutual learning by providing rich reflections on *doing* participatory research.

Notes

1 In a similar vein, Trickett (Trickett, 2011) differentiates between community-based participatory research as a *worldview* or as an *instrumental strategy*.
2 However, as Williams et al., point out, notions are often confounded as a result of the increasing "appetite for participatory research practice" (Williams et al., 2020, p. 1).
3 The literal terms in Behrisch and Wright (2018) are «wissenschaftliches Wissen», «Praxiswissen» and «Alltagswissen». The notions «scientific knowledge" and "everyday life knowledge" are verbatim translations. The verbatim translation of "Praxiswissen" is "practice knowledge". We took the liberty to adapt it to "professional knowledge" to avoid confusion. From a praxeological perspective, practice implies action and doing in a more general sense, i.e. in everyday life as well as in science and other professions. We think that this is in line with the authors' intention.
4 The sub-project "Media of Cooperation in Caring Communities" funded by the German Research Foundation (DFG) (SFB 1187 "Media of Cooperation") cooperates with and builds on the CareComLabs research work.
5 All names of places and persons are pseudonyms to protect people's identities.
6 It takes a 45-minutes bus- and train-ride to reach the next city.
7 Exchanges consisted of physical, online and hybrid meetings, and some events with the Bachdorf population and other local organizations such as hosting a booth at the Christmas bazaar.
8 See e.g. the discussion on social desirability (Krumpal, 2013).
9 This might apply for citizen researchers, too, but we lack a solid basis to claim it.

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