Citizen experts in participatory governance: Democratic and epistemic assets of service user involvement, local knowledge and citizen science

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Abstract
Initiatives that attribute expert status to ‘ordinary citizens’ proliferate in a range of societal realms and are generally celebrated for ‘democratising expertise’. By tapping new sources of knowledge and participation simultaneously, such ‘citizen expertise’ practices seem to provide responses to the contemporary decline of trust in political elites and traditional experts that seriously challenges the legitimacy of democratic policy-making. This study distinguishes between three quintessential types of citizen expertise (‘local knowledge’, ‘service user involvement’ and ‘citizen science’) and, from an integrated perspective, critically discusses the value of citizen expertise for public knowledge production and democratic governance. Drawing on empirical insights and on theories of democracy and of expertise and knowledge, the concepts of expertise and participation are refined and quality conditions of citizen expertise are developed. The study argues that citizen expertise is epistemically particularly valuable when it is based on distinct, non-ubiquitous experiences and on collective, not just individual, insights. It contends that representativeness is key to the democratic legitimacy of citizen experts in the policy context and points to the key role of organised civil society in establishing the required accountability relationships.

Keywords
Citizen expert, citizen science, civil society, democratic legitimacy, lay expertise, local knowledge, participatory governance, public participation, public policy-making, service user involvement

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Introduction

All around Europe and the United States, and in contexts as different as urban development, healthcare and wildlife protection, practices proliferate that take citizens seriously as holders of expertise and involve them as active contributors into the production of public knowledge. Such ‘lay’ or ‘citizen expertise’ practices seem to be particularly prevalent in the realms of policy-making and research, due to their double epistemic-democratic potential of involving the public and delivering expertise. This double potential of representing a source of knowledge and of participation is expressed in many ways in empirical practice: Participants of citizen juries in Scottish health policy, for instance, are asked to draw conclusions that are ‘representative of the wider public’ and to bring with them ‘the good sense and wisdom born of their own knowledge and experience’ (Scottish Health Council, 2014: 34); a recent German climate protection project invites hard-to-reach groups in the double role of public representative and ‘local expert’ to promote the energy transition within their communities (Aktiv BüKe, 2019: 2), and according to the European Union’s (EU) White Paper on citizen science, the involvement of non-scientists into collaborative research networks leads to ‘a more democratic research based on evidence and informed decision-making’ (So-cientise, 2014: 10).

The double promise that this rhetoric radiates makes citizen expertise practices extraordinarily auspicious and potentially authoritative – and they seem to be a huge asset in times of dwindling trust in both political and knowledge elites, not least because they harness novel resources of knowledge and participation that seem to be ‘closer to the people’: From an epistemic perspective, citizen expertise practices promise to challenge the elitism and rigidity of the science system, bring down barriers of institutionalised knowledge production and extend the diversity of the knowledge base by tapping into so far idle knowledge resources of ‘lay people’. Involving the public more broadly into public knowledge production has also been discussed as a way of raising ‘scientific literacy’, promoting the ‘public understanding of science’ (PUS) and ‘evidence-based decision-making’ in the light of post-factual pressures (see, for example, European Citizen Science Association (ECSA), 2020; Resnik et al., 2015: 476). From a democratic perspective, citizen expertise practices can be seen as ‘democratic innovations’ that differ from the traditional participation channels of the representative model of democracy because they target the less powerful, the non-elites, the wider public and less established grass roots groups (Irvin and Stansbury, 2004; Jasanoff, 2003; Nowotny, 2003). They have the potential to empower ‘ordinary citizens’ and moderate the ‘class bias’ of political participation (Fischer, 2009; Krick, 2021). Since they are co-shaped by the people on the ground, policy solutions developed by citizen experts can also be more efficient, appropriate and accepted by the public.

Empirical studies of these practices have also pointed to problems in individual cases, such as the potential devaluation of academic knowledge or the meritocratic logic of granting access only to citizens with ‘relevant knowledge’ (Meriluoto, 2017). Besides, it often remains unclear why the more direct involvement of lay people into decision-making would be ‘beneficial to the production of high-quality knowledge’ (Yearley, 2000: 109), not (merely) the extension of democracy. Lay expertise is often elevated without sufficiently spelling out what its epistemic status is (Grundmann, 2017: 44) and
how it differs from rights- and interest-based claims (Martin, 2008a, 2008b). What is more, the advent of the citizen expert is generally celebrated as an expression of a ‘democratisation of expertise’ (Jasanoff, 2003; Nowotny, 2003), the ‘co-production of knowledge’ (Jasanoff, 2006) and ‘post-normal science’ (Funtowicz and Ravetz, 1993) or the outcome of a ‘participatory turn’ in modern governance (cf. Krick, 2021; Meriluoto, 2017). Yet, as Mirowski (2018: 177) notes, an ‘impoverished notion of democracy’ is often inherent in pleas for openness and general references to democratisation. Besides, it is highly likely that citizen expertise practices encounter the same equality and accountability deficits as many other innovative participatory endeavours.

Generally speaking, academic and political debate has taken it too easily for granted that lay or citizen expertise practices represent the double cachet of expertise and democratic participation, while the conditions under which this would be the case are rarely discussed and democratic dilemmas are hardly considered. What is more, perspectives that do take a critical stance usually only consider one of the two normative dimensions at play and studies about the knowledge quality of alternative forms of expertise are particularly rare.

The evident normative potential of citizen expertise practices, their apparent advent in contemporary political practice, and the widespread sweeping enthusiasm and the lack of research that takes an integrated and critical perspective at this phenomenon call for a closer examination of the epistemic and democratic qualities of these practices. This study is interested in the many potentials of citizen expertise but also asks ‘Under which conditions does the input of ordinary citizens qualify as valuable, reliable expertise?’ and ‘What makes for the democratic quality of citizen expert participation?’

To deal with these questions, the study proceeds in two steps: In the first section (What is ‘citizen expertise’?), three different types of citizen expertise (‘local knowledge’, ‘service user involvement’ and ‘citizen science’) are described in terms of their distinct characteristics and overlaps between the forms and with special regard to the knowledge qualities and the democratic status of these practices.1

Drawing on these findings and on theories of democracy, participation, expertise, science and knowledge, the second section (The democratic and epistemic qualities of citizen expertise) refines the concepts of expertise and participation and develops quality criteria of citizen expertise. It is argued that citizen expertise practices are epistemically particularly valuable when they are based on distinct, non-ubiquitous experiences and on collective, not just individual, insights. The democratic legitimacy of these practices is shown to depend on the representativeness of citizens experts, which is most likely realised when modes of authorisations and accountability are provided for and organised advocacy groups play a key role.

The conclusion summarises the study’s relevance and sketches future research trajectories. It elaborates on the relationship between the two normative dimensions in focus and the insights gained from analytically distinguishing them.

The contribution of the study can be summarised as threefold: First, it synthesises empirical research on quintessential forms of citizen expertise and thus adds to typifying and conceptualising the phenomenon in focus. Second, it develops quality conditions that are tailored to the specific properties of lay expertise practices and can be used as
What is ‘citizen expertise’? Service user involvement, local knowledge and citizen science

Before different empirical manifestations are distinguished, ‘citizen expert/ise’ needs to be defined as a key term. The concept/s are employed for alternative, non-credentialed knowledge holders and knowledge forms that can be held by average members of the general public. In contemporary research, these forms of knowledge have also been termed ‘non-certified’ or ‘non-codified’ (Collins and Evans, 2002; Corburn, 2002; Fischer, 2000), ‘local’ (Corburn, 2002; Demszky and Nassehi, 2012; Fischer, 2000; Wynne, 1996), ‘lay’ (Bellander and Landqvist, 2020; Sprain and Reinig, 2017; Wynne, 1996), ‘tacit’ (Polanyi, 1966; Pols, 2014), ‘experiential’ or ‘experience-based’ (Bellander and Landqvist, 2020; Blume, 2017; Borkman, 1976; Demszky and Nassehi, 2012; Meriluoto, 2017, 2018; Noorani, 2013).

‘Citizen expert/ise’ is chosen as the key term in this study, first, because it is not particularly commonly used for alternative knowledge forms, and therefore less charged with connotations. Second, it reflects the double normative potential of these practices and thus the twofold normative focus of the study on democratic participation and public knowledge production. The notion of ‘lay exper/tise’ is avoided here, primarily because it is considered an oxymoron: A lay person is somebody without expertise on a certain issue (see also Collins and Evans, 2002: 238; cf. Epstein, 1995; Wynne, 1996).

‘Expertise’ can be paraphrased as the knowledge that experts hold. To be more precise, a relational, sociological notion of expert/ise is employed here, according to which expertise is advisory by nature and depends on the recognition of others (Eyal, 2019: 24; Funtowicz and Ravetz, 1993: 748; Grundmann, 2017: 26; Straßheim, 2008: 292). This understanding is open to all kinds of knowledge that have use for others and it is clearly not limited to credentialed, scientific or professional expertise. The second section of the article will elaborate on the concept and discuss what makes for ‘good’ (citizen) expertise.

The ‘citizen’-element of ‘citizen expertise’ stands for the participatory aspect of these practices. It is often used as a buzzword that points to a variation of interlinked notions, such as the grassroots level of politics, democratic self-determination, lay people or ‘the public’, and thus, in a broad-brushed way, signifies democratic credentials (Brown, 2009; Krick, 2021; Martin, 2008a). What the conditions of democratically particularly valuable citizen expertise are, will be discussed more thoroughly in the second section.

The following subsections will focus on three types of citizen expertise (‘local knowledge’, ‘service user involvement’ and ‘citizen science’), which will be located in different societal sectors and research fields and characterised in terms of their epistemological and political status. Since this study is inter alia interested in democratic legitimacy, it
focuses on practices of citizen expertise that are embedded into the policy context, and thus the realm of society where democratic legitimacy questions pose themselves.

**Local knowledge**

The knowledge resources of local communities have been dealt with in environmental studies and research on development and planning, in particular (Collins and Evans, 2002; Corburn, 2002; Fischer, 2000; Irwin, 1995; Schoffield, 2002; Wynne, 1996). The knowledge that these groups hold is often termed *local knowledge* and it can be defined as the expertise of ‘users of a certain locality’ (Collins and Evans, 2002: 266) or as ‘knowledge about a local context’ (Fischer, 2000: 194). It is knowledge with a strong connection to the place of emergence, that is interwoven with immediate practices (Fischer, 2000: 201, 216) and acquired by living in a certain environment, using its infrastructure extensively or cultivating it, by being observant and in touch with other members of the community.

*Residents* of a certain place are one group that is often described as holders of local knowledge (or as *local experts*) (Corburn, 2002: 420; Schoffield, 2002: 671). The concept also often relates to farmers, hunters and other groups that may not primarily know a place by living there, but by cultivating or using it otherwise (Fischer, 2000; Irwin, 1995; Wynne, 1996). Residents’ knowledge can relate to movement patterns or social codes, for instance. It will particularly likely be held by youths who spend a lot of time outside their houses and are in immediate touch with their local environment or by lifelong residents of a neighbourhood. Farmers and hunters’ knowledge, such as local soil and wildlife expertise, is not necessarily entirely ‘non-certified’ and ‘non-professional’ (and certainly not ‘lay’ knowledge), but crafts- and skills-based knowledge that is ‘derived from many years of experience and part of cultural traditions that have co-evolved with local environments’ (Fischer, 2000: 201). As indicated here, local knowledge often extends the personal experience of an individual; it can be passed along in the process of work, is perpetuated through stories and jokes, stored in a group’s collective memory (Fischer, 2000: 197), gathered through years of non-systematic observation and tends to be ‘tacit’, rather than explicit or written down (Corburn, 2002: 421; Fischer, 2009: 191ff.). This kind of knowledge can be impossible to gather for strangers to a place who do not share the cultural habits, language and collective memory of the community (Corburn, 2002; Fischer, 2000; Wynne, 1996). Researchers or policy-makers who aim at insights into a certain locality (to understand the needs of a community and identify efficient, adequate and low-cost solutions to problems, for instance) will depend on locals providing this information.

When local knowledge is actually listened to, it can have an empowering and transformative effect. In the ideal case, it can bring about public policies that are better tailored to real-life problems and likely to meet acceptance and compliance of the target group. Yet, to be sure, ‘tapping community resources’ can also be a cheap way of tackling collective issues and of referring state responsibility back to the individual. There is also a certain danger of a growing political disenchantment when local input is called for by policy-makers, but then not acted upon, which is a recurring problem of many participatory endeavours (Irvin and Stansbury, 2004; Krick 2021; Martin, 2008a).
**Service user involvement**

In studies on healthcare as well as social work and policy, a lot of attention has been focused on users of public services. The bulk of research is on groups of people who have undergone social or health-related difficulties and have acquired knowledge about public services from that perspective. A particular emphasis of the existing research has been on people with diseases and mental health issues (the first often referred to as ‘patients’, the latter sometimes as ‘survivors’) (Bellander and Landqvist, 2020; Blume, 2017; Demszky and Nassehi, 2012; Epstein, 1995; Martin, 2008a, 2008b; Meriluoto, 2017, 2018; Noorani, 2013; Pols, 2014; Prior, 2003). This section will therefore also focus on these studies.4

In many countries, an increased concern for patient-centred medicine has manifested itself in a trend towards shared decision-making and patient-friendly communication practices (Pols, 2014; Prior, 2003). The paradigm of ‘service user involvement’ has been particularly strong in the United Kingdom where it is related to the ‘third way’ health and social care reform (Meriluoto, 2017; Prior, 2003). Yet, ‘the involvement of the public, as citizens and clients in the management and provision of public services is an aim now common to governments across much of the economically developed world’ (Martin, 2008a: 35).

The expertise of patients to a large extent draws on their ‘raw’ experience with a disease, but often also on peer experiences that are shared in self-help forums, as well as medical knowledge learned from self-study and talk with medical professionals (Blume, 2017; Noorani, 2013; Pols, 2014). It is ‘knowledge obtained by being part of a phenomenon’ (Blume, 2017: 94), knowledge that is context-bound and inseparably linked to individuals’ lives and bodies. It is not the same as medical knowledge, but influenced by it and co-shaped by medical practices (Pols, 2014: 77). These experiences and learning processes generate a privileged understanding of physical or mental distress connected to an illness, the effects of treatments, as well as knowledge about coping strategies, needs for recovery and experiences with the health service (Noorani, 2013). Feeding this knowledge into policy-making processes can be beneficial on a personal and a collective level. On a personal level, it can add to the emancipation, self-reliance and self-efficacy of those contributing the knowledge. On a collective, political level, co-produced public services can raise the cost-efficiency as well as the legitimacy, acceptance and effectiveness of public service reforms (Meriluoto, 2017: 2, 4).

Yet, of course, the many prospects of service user involvement are often not realised. ‘Empowerment’ through service user involvement is often not more than a mere promise, and ‘public administration has not always been keen to incorporate the knowledge of these new experts’ (Meriluoto, 2017: 3). As with other participatory formats, there is always a danger of using ‘public involvement initiatives as a tool for self-legitimization or a means of ratifying ‘faits accomplis’ (Martin, 2008a: 36; see also Barnes, 1999).

Besides, what counts as knowledge is often pre-determined by the existing, credentialed medical knowledge, and patient perspectives need to fit into the established knowledge systems to be acknowledged. What is more, several authors have described how patient insights are more likely to be granted authority when they have been analysed and reflected upon, when they build on multiple insights, are described in a rational, unemotional way.
and when they put forward by a communicative, enthusiastic spokesperson (Meriluoto, 2018: 117; 127f.; Noorani, 2013: 63; see also Martin, 2008a; Pols, 2014). To this effect, courses for ‘experts-by-experience’ have been established in many countries, training people with problematic experiences to analyse and distance themselves from their personal experience in order to provide peer support and advise experts and policy-makers (Blume, 2017; Martin, 2008a; Meriluoto, 2017; Pols, 2014). While one effect of the processing, generalisation and rationalisation of insights may be a higher likelihood of advocating the group’s view convincingly and being heard by policy-makers, the trainings have also been criticised as ‘normalization strategies’ that tame people and mud the authenticity of their knowledge (Meriluoto, 2017; Noorani, 2013).

**Citizen science**

Many scientific disciplines have dealt with and used collaborative research practices that involve non-scientists into scholarly knowledge production. During the last decades, ‘citizen science’ has established itself as the main term for such collaborative research practices. Citizen science initiatives and publications proliferate especially in the life sciences and in projects that gather and typify large amounts of observations (Kasperowski and Hillman, 2018: 565; Science Europe, 2018). Two separate publications in the mid-1990s introduced the term ‘citizen science’ independently from each other in the natural sciences (Bonney, 1996) and in the social sciences (Irwin, 1995), thus establishing two quite different traditions. In their understanding of citizen science, the Irwin tradition emphasises that lay people possess valuable insights and can produce reliable knowledge. Citizens are granted responsible tasks such as co-designing research and contributing to the interpretation of data, and the impetus of this tradition is empowering, bottom-up and cooperative (Riesch and Potter, 2014: 109). Citizen science is here seen as a way to open up science and science policy to the public, raise the responsiveness of science to society’s needs and approximate ‘scientific citizenship’ (Irwin, 1995: 69–80; see also Funtowicz and Ravetz, 1993). In this tradition, citizen science practices overlap with the local knowledge and community engagement initiatives described earlier (Irwin, 1995; Kasperowski and Hillman, 2018: 566f.).

The Bonney tradition, by contrast, attributes a more limited role to citizens. Citizen science is a research technique that mainly involves non-scientists into data gathering (Kasperowski and Hillman, 2018: 566f.; Pocock et al., 2017; Resnik et al., 2015). On top of volunteer contributions to observation collection and classification, ‘scientific literacy’ is an important goal of these practices and citizen science is used as a tool to teach ‘scientific understanding’ and skills to the public. Citizen science projects in the natural science tradition are usually top-down projects, initiated by professional researchers (Kasperowski and Hillman, 2018: 566f.).

Whatever the role of citizens in individual initiatives, citizen science promises to be a cost-effective method of monitoring and research because it builds on the (unpaid) labour of non-professionals (Mirowski, 2018; Pocock et al., 2017). When citizens are involved in more responsible roles, such as co-designing the research approach and co-analysing data, these practices can be vehicles for public outreach and education, for developing the ‘social capital’ of a community (Resnik et al., 2015: 476), for raising participants’
self-efficacy and giving citizens a stake in (scientific) issues of concern to them (Pocock et al., 2017; Resnik et al., 2015: 477; Riesch and Potter, 2014: 118; Strasser et al., 2019: 52). In its empowering and transformative variant in particular, citizen science practices obviously have a political dimension. What is more, governments around the world now promote citizen science by directing state agencies to work with it and issuing guidelines and ‘toolkits’ for incorporating it into policy-making. In addition, citizen science associations that lobby for the spread of these practices are accumulating around the world (see, for example, ECSA, 2020).

The main concern raised about citizen science is about data quality, and others relate to potential conflicts of interests, the outsourcing of research assistant jobs to unpaid volunteers, the potential exploitation of citizens and their limited chances of actually influencing the substantial questions of a research design (Kasperowski and Hillman, 2018; Mirowski, 2018; Resnik et al., 2015; Riesch and Potter, 2014).

The democratic and epistemic qualities of citizen expertise

In this section, the democratic and epistemic qualities of citizen expertise are discussed with the aim of suggesting quality standards. The first section looks through the lens of democratic participation. It starts from the premise that citizen expertise practices are of democratic value if those affected have equal access to it (directly or through representatives) and analyses the conditions for achieving this. The second section discusses the characteristics of citizen input from an epistemic perspective. It focuses on the requirements of claims being considered reliable and instructive for dealing with collective problems.

The democratic legitimacy of citizen expertise

This section discusses what it would presuppose to ‘democratise expertise’. Under which conditions does citizen expert involvement add to the democratic legitimacy of policymaking? When is it ‘good for democracy’? The key democratic value that the analysis centres on is democratic participation, understood in theories of democracy as the equal opportunity of every individual who is seriously and permanently affected by a decision to influence that decision (Fung, 2013: 247; Warren, 2002: 693; Young, 2000: 5–6). When looking at the participation patterns of citizen expertise, under which conditions can such equal access of the affected be achieved?

First of all, equal involvement should not be taken for granted just because a certain practice has a democratic ring to it. Democratic tags are often attributed to participatory practices in a quite general and affirmative way, without being broken down to what they actually mean, without being operationalised or put to a test (Brown, 2006: 204; Lehoux et al., 2012: 1844). In a similar way, the more specialised literature on empirical manifestations of citizen expertise, summarised in the first part of this study, leans towards stressing the democratic potential of citizen expertise practices. Citizen expertise practices are often described as potentially empowering ‘ordinary citizens’ and raising their individual self-efficacy, as linking up public policy-making more closely to the needs of ‘the public’ and, as a result, generating more appropriate, legitimate and acceptable
solutions. Yet, little attention is paid to the conditions that must be met for citizen expertise to develop these positive effects.

A second key point to consider is the fact of participation being selective: It is always a mere selection of those affected that participate politically and this selection is usually heavily distorted towards the better-to-do citizens (see, for example, Fung, 2006: 67; Lijphart, 1997: 1–2; Urbinati and Warren, 2008: 405). When we look at citizen expertise practices more specifically, the selectivity problem is further exacerbated: Citizen experts are usually not involved in large numbers, not least because their expertise builds on specialised, scarce knowledge that only particular people hold who made certain experiences. Across the different empirical practices distinguished in the first section of the study, the participatory channels that citizen experts engage in reflect this: Citizen experts typically get appointed to policy advisory and monitoring boards (e.g. of the health sector), are involved in minipublics (such as consensus conferences and citizen juries), campaign as activist groups for popular petitions and policy change and deliver studies and statements in public hearings. These are not mass devices, such as elections, for instance, but quite specialised venues that rely strongly on direct communication and deliberation among a limited number of people. Thus, selectivity is a fact to be dealt with in citizen expertise practice and it opens up questions of fair representation. This is even more urgent since citizen experts are usually not asked to speak for themselves only, but to ‘talk on behalf of a constituency’, ‘share a communitarian consciousness’, have ‘a sense of the common good’, ‘represent a microcosm of their community’ or ‘be representative of the wider public’ (Brown, 2006: 204f.; Lehoux et al., 2012: 1844–1849; Martin, 2008a: 45ff.; Scottish Health Council, 2014: 34). It is often far from obvious, however, on what grounds the selected citizen experts can be expected to ‘know the public will’ or stand for a larger collective. Therefore, when analysing the equality of access to citizen expertise practices, it needs to be ensured that the selected citizen experts legitimately represent those they are meant to stand for.

There are different, competing ways of attaining representativeness (i.e. fair, legitimate representation). Their appropriateness inter alia depends on the channels of influence and the number of participants. While statistical representativeness, which builds on selection by lot and aims at demographic similarity between representatives and the represented, is the mode widely promoted in participatory practice (Barnes et al., 2007), it is not well suited for citizen expertise practices. Most importantly, it depends on large numbers of participants and is therefore very hard, if not impossible, to achieve in the cases in focus on here because of the selectivity that characterises the citizen expertise practices described earlier. What is more, randomly chosen individuals will usually not hold the specialised knowledge that distinguish citizen experts (Krick, 2019).

There is another mode of representation that recommends itself particularly for citizen expertise practices, and that is substantive representation. Substantive representation is built up and reconfirmed through acts of (more or less formal) authorisation and accountability, which establish an ongoing accountability relationship between representatives and the represented (Krick, 2019; Pitkin, 1967; Urbinati and Warren, 2008; Young, 2000). Such an accountability relationship can best be ensured by organised groups that pool and advocate certain societal viewpoints and interests, build on membership logics and follow democratic decision rules (e.g. when electing their leadership), are open to newcomers,
transparent in their conduct and have a track record of fighting for the rights and interests of their constituency (Krick, 2019: 109ff.; Urbinati and Warren, 2008: 404; Young, 2000: 128ff.). Not all advocacy groups fulfil all of these standards of course, and indeed, accountability relationships can also be more indirect, informal and time-delayed. For instance, political entrepreneurs, charities, foundations or donation-based organisations (e.g. Greenpeace) are usually not authorised directly because they do not build on membership. Such self-authorised representatives can nonetheless be held to account in a range of more informal ways, for instance, by other groups or the media scrutinising an advocacy group’s actions and using accountability devices such as performance indicators, audits and surveys (Krick, 2021; Urbinati and Warren, 2008; Warren, 2002).

The important role of organised groups in ensuring substantive representation is often not recognised in participatory discourse where a preference for the unaffiliated, detached and disinterested individual prevails. As Barnes (1999: 79) as well as Beresford and Campbell (1994: 317) emphasise, being involved, informed or engaged is even commonly regarded as genuinely ‘unrepresentative’, ‘atypical’ or ‘unauthentic’ (cf. also Martin, 2008a: 41). Another recurring theme is that citizens need to be ‘detached’ and impartial to ‘represent the public’, while being organised in groups is considered an indicator of being ‘interested’ and subjective (Beresford and Campbell, 1994: 137; Lehoux et al., 2012; Noorani, 2013: 63). Barnes (1999: 79) observes, for instance, that professionals in service user involvement often question the representativeness of involved, organised citizens because of their connection to an interest group. Such a viewpoint neglects the legitimacy of advocacy and activism quite generally, marginalises smaller non-governmental organisations (NGOs), grass roots organisations, professional associations and business organisations alike (e.g. Tesh, 1999: 44) and overlooks the importance of organisation for the representation of less privileged voices in particular (Fischer, 2009: 70). Moreover, citizens’ viewpoints have a much better chance of gaining political influence when they are organised in groups, and, in fact, it is actually seldom individuals without any group affiliation that get engaged and actively shape public policies (Tesh, 1999). To be sure, the activities of organised groups are also easier to scrutinise and held to account by a broader public than an individual who claims to act on behalf of others. When an unaffiliated, ‘ordinary’ person speaks for others, it usually remains unclear which mandate she has and how she can be sanctioned (e.g. replaced) in cases of misconduct or failure. It is also far from obvious how she could ‘know the public will’ in the absence of accountability and communication channels that connect her with a constituency. The general fondness for detached, ‘ordinary citizens’ in public debates of participation notwithstanding, we need to be wary of assuming that unaffiliated individuals would be particularly disinterested and impartial, ‘stand for the common good’ or act in consent with those they speak for. Such unity and purity assumptions can romanticise and at the same time overburden the ‘ordinary citizen’ and reconfirm anti-pluralist ideas inclinations in society (Hennen, 2012; Krick, 2021).

The epistemic value of citizen expertise

After the preceding section dealt with the conditions of democratising citizen expertise practices, the succeeding section asks, ‘What makes for the epistemic value of citizen expertise? When is it “good for public knowledge”?’
As stated before, expertise is here understood as the knowledge of experts. Both ‘expertise’ and ‘expert’ are honorary titles (or ‘epistemological badges’) that indicate a high reliability and validity of claims. From a sociological-relational viewpoint, ‘expert’ is a social status, a role that an audience attributes to somebody who is deemed to hold (or qualified to generate) reliable knowledge about a certain issue (Eyal, 2019: 22; Straßheim, 2008: 292). Moreover, someone who is believed to be an expert is expected to give advice, make judgements, mediate, or identify courses of action (Eyal, 2019: 24; Funtowicz and Ravetz, 1993: 748; Grundmann, 2017: 26, 42; Krick, 2021: 46ff.; Jasanoff, 2005: 3; Nowotny, 2003: 151).

It follows from this definition that expertise can build on all kinds of sources, as mentioned earlier: The notion incorporates scientific, professional and credentialed knowledge as well as informal, tacit, and alternative and non-credentialed forms; it can relate to practical know-how as well as to scholastic knowledge and mixtures of these forms; it can include ‘core science’ as well as mandated, ‘regulatory’ and ‘post-normal’ science (Funtowicz and Ravetz, 1993; Jasanoff, 2005), ‘contributory’ as well as ‘interactional expertise’ (Collins and Evans, 2002; Eyal, 2019). Citizen expertise (as the kind of expertise in focus here) is non-credentialed and usually experiential, but it can be infused by abstract, professional knowledge and scientific findings.

Now, under which conditions do we want to acknowledge others as experts and let them guide our actions? In other words, ‘When are claims to expertise reliable?’

Two quality requirements stand out in expertise studies that build on a wide, encompassing expertise notion: Reliable or trustworthy expertise claims are indicated by (1) the specialised capabilities and competences or those deemed experts (Eyal, 2019: 36; Grundmann, 2017: 26; Krick, 2018: 214ff.; 2021: 51; Straßheim, 2008: 292) and (2) a certain objectivity or disinterestedness of these agents (Haas, 2004: 576; Krick, 2018: 215; Krick and Holst, 2019: 126; Lentsch and Weingart, 2011: 361; cf. also Grundmann, 2017: 26, 45). These standards can translate into quite different conditions and indicators, depending on the type of knowledge in focus. With regard to the non-credentialed knowledge of citizen experts, it can be argued that the reliability of citizen expertise is higher when it is based on non-ubiquitous and non-idiosyncratic experiences, as will become clearer in the following sections:

Across the citizen expertise practices analysed earlier, one particular kind of knowledge stands out as particularly policy-relevant, and that is experience-based knowledge. Experience-based (or experiential) knowledge is ‘truth learned from personal experience with a phenomenon rather than truth acquired by discursive reasoning, observation, or reflection on information provided by others’ (Borkman, 1976: 446; see also Collins and Evans, 2002; Meriluoto, 2017; Noorani, 2013). It is the essence of competence of non-credentialed experts. It builds on firsthand experience, insights and expertise that comes with being part of a phenomenon (Blume, 2017: 94). Holders of experience-based knowledge speak on behalf of something that is part of themselves (one’s body, one’s service use, one’s environments) (Strasser et al., 2019: 65). Policy-makers will likely consider this kind of knowledge useful and precious when it is non-ubiquitous, that is, not held by everyone, and precisely not ‘everyday (life) knowledge’. To be sure, of this latter kind of everyday knowledge (that could be called ‘common sense’ and ‘rationality’), citizen experts will also contribute a lot in the course of their engagement into
policy practices. Yet, it is not what makes their involvement so valuable from an epistemic viewpoint because everyday knowledge is also something that credentialed (e.g. scientific) experts or politicians could contribute, based on their general life experience and common sense.

It further adds to the epistemic value of this kind of experience-based knowledge when it is non-idiosyncratic, that is, not specific to one particular person or case. Knowledge claims, whether based on experience and practice or on scientific study and analysis, tend to be more useful to a broader audience and, in particular, suited to inform collective decision-making, when they do not simply build on an individual observation, but can be generalised to some extent. In the policy-context, experience-based knowledge can be deemed particularly reliable and relevant when it extends one particular perspective, is co-shaped by other people’s experiences and further sources of knowledge, has potentially been analysed and processed within peer groups and draws on multiple observations or stories, on long traditions, collective memories and craftsmanship (Fischer, 2000; Martin, 2008a; Meriluoto, 2017). The generalisability and multiperspectivity substantiate non-idiosyncratic knowledge claims and make them more useful for others. One can even argue that these characteristics lend them a certain kind of objectivity born from the variety of experiences they represent. To be sure, those who generate and supply non-idiosyncratic, experience-based citizen expertise (be they individuals or organised groups) will usually be affected by the issues they are asked to comment on and thus likely be influenced by self-interest. Yet, for one, conventional experts are not devoid of self-interest either (Grundmann, 2017: 45), and, for another, there are a variety of understandings of objectivity and disinterestedness of experts. They range from political and financial autonomy (Krick and Holst, 2019: 126; Lentsch and Weingart, 2011: 361), to ‘mechanical objectivity’ that relies on standardisation and quantitative measures (Eyal, 2019: 115), over to notions of plurality and balance of viewpoints among groups of experts (Holst and Molander, 2017: 248; Krick and Holst, 2019: 127), and non-idiosyncratic citizen expertise potentially contributes the latter.

Concluding remarks

This study has started from the observation that citizen expertise practices radiate a huge potential that is based on a double promise: By tapping simultaneously into new sources of participation and knowledge, contemporary challenges to the representative system of government as well as to the status of established knowledge orders can be moderated, and epistemic and democratic demands possibly reconciled. As a response to the pronounced potential of these up-and-coming practices and the limited interconnection of different research fields dealing with citizen experts, this article engaged in bringing together existing perspectives on the phenomenon and analysing, from an integrated, theory-based viewpoint, under which conditions the double promise is likely to be met.

In a nutshell, the study put forward the following quality criteria of citizen expertise: Based on debates in democratic theory with a focus on participation and representation, the study scrutinised the claim of ‘democratising expertise’ by opening up knowledge practices to the public and put forward standards of democratic citizen expertise practice: To ensure equal participation of the affected, the representativeness of the involved
is key, and it is most likely realised when modes of authorisation and accountability are provided for and organised advocacy groups take centre stage. From an epistemic perspective and theories of knowledge and expertise, claims that are based on distinct experiences with a certain phenomenon — be it a locality, a culture, an infrastructure, a bodily state or a combination of such things — denote particularly valuable expertise in the policy context. If such experience-based expertise is, first, ‘non-ubiquitous’, that is, not held by everyone, and, second, builds on the collective experiences, memories and traditions of a group (not only on idiosyncratic insights), it is to some extent generalizable, can be greatly instructive and contribute to solving collective problems.

The study concedes that there is a close connection and even overlap between the democratic and epistemic qualities of citizens’ contributions, but that it is nonetheless possible and worthwhile to analyse these dimensions separately. The distinction between the epistemic and democratic dimension can blur because similar factors matter, but take different shadings: For instance, for both the epistemic and the democratic dimension, the properties of the involved individuals are key. Yet, from a democratic perspective, it is the affectedness of a person that makes her input valuable, while from an epistemic perspective it will be her competence (experience-based, training-based, etc.). For another example, from both perspectives, an individual’s viewpoint does not have the same authority as a collective’s position. On the epistemic dimension, it has to do with the higher validity and reliability of generalisable, shared knowledge claims. On the democratic dimension, a group’s position might not be ‘truer’, but if it represents the integrated position of a large collective, it rightly assumes influence on political decisions. The study’s look through the double lens of epistemic and democratic worth allows to co-consider the two normative concerns and keep them analytically apart at the same time. This again makes it possible to both establish distinct conditions for the two dimensions and take account of the dimensions’ interrelatedness and frequent blurring, for instance, in social constructivist and critical thinking that adopts a wide notion of expertise.

Sympathetic as one can be about the endeavour to ‘open up’ public knowledge production and expertise-based decision-making, there is a flipside to it: First, the rational, objective nimbus of expertise obviously incites an expansion of the notion and an application to all kinds of claims, not just knowledge claims. The problem is that such an overuse can both marginalise competing claims based on rights and interests and disparage commendable attempts at extending the boundaries of expertise. Second, indiscriminate enthusiasm for public involvement can backfire. To be sure, contrary to the elitist belief that ‘the people cannot govern’ for lack of motivation and knowledge (see, for example, Lippmann, 1925: 61), empirical studies have shown repeatedly that extended participation is both on high demand and possible to organise in inclusive and efficient ways. Yet, an all too careless use of ‘democratisation’-tags bespeaks ignorance of the complex requirements of meaningful citizen involvement and democratic governance. Serious efforts at extended public engagement need to take the pervasiveness of democratic dilemmas and collective action problems into account and find ways of dealing with these challenges.

The quality requirements discussed here are an important first step towards acknowledging the potentials of citizen expertise without underestimating the obstacles that need
to be overcome. Next steps could be the empirical application and adjustment of these arguments to other contexts. A comparative programme that checks on the performance of the three types of citizen expertise distinguished in this study or compares culturally different approaches with citizen expertise could take us closer to seeing these practices for what they are, tapping their full potential and readjusting expectations as well as institutional design choices. Moreover, broadening the perspective and applying the quality criteria in an adapted form to other contexts also promises to be fruitful. After all, the relevance of the discussed quality conditions is not limited to citizen expertise, but extends to participatory and evidence-based collective practices more generally.

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Notes
1. To illustrate, recent empirical examples of these three types of citizen experts are the aforementioned holders of local climate and energy transition knowledge in the Aktiv Büke (2019) project, the patients and service users sitting on Scottish Health Councils (2014) as well as the young participants of the Youth citizen science project YouCount (2021).
2. By contrast, the knowledge of credentialed, professional experts (researchers, expert civil servants, specialist journalists, etc.) has been called ‘certified’ (Collins and Evans, 2002), ‘professional’ (Bellander and Landqvist, 2020; Blume, 2017; Borkman, 1976; Corburn, 2002), ‘scientific’ (Bellander and Landqvist, 2020; Fischer, 2000) and ‘explicit’ (Demszky and Nassehi, 2012; Polanyi, 1966; Pols, 2014).
3. The concepts of ‘local’ or ‘community’ knowledge are sometimes stretched to embrace other alternative, non-credentialed forms of knowledge that are not bound to a certain place, such as the knowledge that patients with a certain diagnosis hold (Corburn, 2002, see the ‘Service user involvement’ section).
4. To be sure, while the current focus in research may be on patients and the health service, there is no reason why the perspective of service user involvement should not be applied to other public services such as education or family subsidies (Martin, 2008b).
5. Alternative expressions for these empowering, democratizing kinds of approaches to collaborative research are ‘street science’, ‘civic science’ and ‘collaborative/participatory (action) research’, among many others (Kasperowski and Hillman, 2018: 566f.).
6. Alternative expressions for this tradition of citizen science are ‘crowd-sourcing’, ‘crowd(-funded) science’, ‘open science’, ‘science 2.0’ or ‘amateur science’ (Kasperowski and Hillman, 2018: 566f.; Mirowski, 2018; Strasser et al., 2019).
7. See, for example, the guidelines issued (or funded) by US and German administrations: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/holdren_citizen
Unless the selected group is very large, the similarity between representatives and their constituency in the descriptive or statistical mode of representation is reduced to only a handful of basic characteristics such as sex, age and educational background and the underlying ‘logic of identity’ of people with comparable demographic characteristics has been challenged by democratic theory (Krick, 2021: 41, 141; Young, 2000: 125, 142).

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Résumé
Les initiatives attribuant le statut d’expert à des « citoyens ordinaires » se multiplient dans divers domaines de la société, et sont généralement célébrées pour avoir « démocratisé l’expertise ». En exploitant simultanément de nouvelles sources de connaissance et de participation, ces pratiques d’« expertise citoyenne » semblent apporter des réponses au déclin contemporain de la confiance dans les élites politiques et les experts traditionnels, qui remet sérieusement en question la légitimité de l’élaboration démocratique des politiques. Cette étude distingue trois prototypes de quintessence de l’expertise citoyenne (« connaissance du terrain », « participation des usagers » et « science citoyenne ») et, dans une perspective intégrée, examine de manière critique la valeur de l’expertise citoyenne pour la production de connaissances par la population et pour la gouvernance démocratique. À partir de données empiriques et de théories sur la démocratie, l’expertise et la connaissance, les notions d’expertise et de participation sont affinées et des critères pour évaluer la qualité de l’expertise citoyenne sont développés. J’explique dans cette étude que l’expertise citoyenne est particulièrement précieuse d’un point de vue épistémique lorsqu’elle est fondée sur des expériences distinctes et non généralisées et sur des connaissances collectives (et pas seulement individuelles). Je soutiens que la représentativité est essentielle à la légitimité démocratique des experts citoyens dans le contexte de l’élaboration des politiques et souligne le rôle clé de la société civile organisée dans l’établissement des relations de responsabilité requises.

Mots-clés
Connaissance du terrain, élaboration de politiques publiques, expert citoyen, expertise non professionnelle, gouvernance participative, implication des utilisateurs de services, légitimité démocratique, participation publique, science citoyenne, société civile

Resumen
Las iniciativas que atribuyen el estatus de expertos a los ‘ciudadanos ordinarios’ proliferan en una variedad de ámbitos sociales y generalmente son celebradas por haber ‘democratizado la pericia’. Al aprovechar nuevas fuentes de conocimiento y participación simultáneamente, estas prácticas de ‘pericia ciudadana’ parecen proporcionar respuestas al declive contemporáneo de la confianza en las élites políticas y en los expertos tradicionales que desafía seriamente la legitimidad de la formulación democrática de las políticas públicas. Este estudio distingue entre tres tipos esenciales
de pericia ciudadana (‘conocimiento local’, ‘participación del usuario del servicio’ y ‘ciencia ciudadana’) y, desde una perspectiva integrada, analiza críticamente el valor de la pericia ciudadana para la producción de conocimiento público y la gobernanza democrática. Sobre la base de las percepciones empíricas y las teorías de la democracia y de la pericia y el conocimiento, se refinan los conceptos de pericia y participación y se desarrollan las condiciones de calidad de la pericia ciudadana. El estudio sostiene que la pericia ciudadana es particularmente valiosa en términos epistémicos cuando se basa en percepciones colectivas, no solo individuales. Se sostiene que la representatividad es clave para la legitimidad democrática de los ciudadanos expertos en el contexto de la gobernanza participativa, y se señala el papel clave de la sociedad civil en el establecimiento de las relaciones de rendición de cuentas requeridas.

**Palabras clave**
Ciencia ciudadana, ciudadano experto, conocimiento local, formulación de políticas públicas, gobernanza participativa, legitimidad democrática, participación de los usuarios de servicios, participación pública, pericia no profesional, sociedad civil