PARTICIPATORY ACTION RESEARCH

Flora Cornish[1*], Nancy Breton[1], Ulises Moreno-Tabarez[2], Jenna Delgado[3], Mohi Rua[4], Ama de-Graft Aikins[5], and Darrin Hodgetts[6]

[1]Department of Methodology, London School of Economics & Political Science, London, U.K.
[2] Departmento de Gestion para el Desarrollo Sustentable, CONACyT-Universidad Autonoma de Guerrero, Acapulco, Guerrero, Mexico
[3]Department of Communication Studies, California State University, Northridge, California, U.S.A.
[4]Māori Studies, University of Auckland, Auckland, Aoteoroa/New Zealand.
[5]Institute of Advanced Studies, University College London, London, U.K.
[6]School of Psychology, Massey University, Albany, Aoteoroa/New Zealand

[*]Email : f.cornish@lse.ac.uk

Abstract

Participatory Action Research (PAR) is an approach to research prioritising the value of experiential knowledge for tackling problems caused by unequal and harmful social systems, and for envisioning and implementing alternatives. PAR involves the *participation* and leadership of those people experiencing issues, who take *action* to produce emancipatory social change, through conducting systematic *research* to generate new knowledge. This primer sets out key considerations for the design of a PAR project. The core of the primer introduces six "building blocks" for PAR project design: building relationships; establishing working practices; establishing a common understanding of the issue;] observing, gathering and generating materials; collaborative analysis; and planning and taking action. We discuss key challenges faced by PAR projects, namely, mismatches with institutional research infrastructure; risks of co-option; power inequalities; and the decentralising of control. To counter such challenges, PAR researchers may: build PAR-friendly networks of people and infrastructures; cultivate a critical community to hold them accountable; employ critical reflexivity; redistribute powers; and learn to trust the process. PAR's societal contribution and methodological development, we argue, can best be advanced by engaging with contemporary social movements which demand the redressal of inequities, and the recognition of situated expertise.

[H1] Introduction

For the authors of this Primer, Participatory Action Research (PAR) is a scholar-activist research approach that brings together community members, activists and scholars to co-create knowledge and social change in tandem[1,2]. PAR is a collaborative, iterative, often open-ended and unpredictable endeavour, which prioritises the expertise of those experiencing a social issue, and employs systematic research methodologies to generate new insights. Relationships are central. PAR typically involves collaboration between a community **[G]** with lived experience of a social issue, and professional researchers, often based in universities, who contribute relevant knowledge, skills, resources, and networks. PAR is not a research process driven by the imperative to generate knowledge for scientific progress, or knowledge for knowledge's sake; it is a process for generating knowledge-for-action, and knowledge-through-action, in service of goals of specific communities. The position of a PAR scholar is not easy and is constantly tested as PAR projects and roles straddle university and community boundaries, involving unequal power relations **[G]** and multiple, sometimes conflicting interests. This Primer aims to support researchers in preparing a PAR project, by providing a scaffold to navigating the processes through which PAR can help us to collaboratively envisage and enact emancipatory futures.

We consider PAR an emancipatory form of scholarship[1]. Emancipatory scholarship **[G]** is driven by interests in tackling injustices and building futures supportive of human thriving, rather than objectivity and neutrality. It uses research not primarily to communicate with academic experts, but to inform grassroots collective action. Many users of PAR aspire to projects of liberation and/or transformation **[G].** Users are likely to be critical of research which perpetuates oppressive power relations, whether within the research relationships themselves, or in a project's messages or outcomes, often aiming to trouble or transform power relations. PAR projects are usually concerned with developments not only in knowledge, but also in action, and in participants' capacities capabilities, and performances.

PAR does not follow a set research design, or particular methodology, but constitutes a strategic rallying point for collaborative, impactful, contextually situated and inclusive efforts to document, interpret and address complex systemic problems[3]. The development of PAR is a product of intellectual and activist work bridging universities and communities, with separate genealogies in several Indigenous[4,5], Latin American[6,7], Indian[8], African[9], Black feminist[10,11], and Euro-American[12,13] traditions.

PAR, as an authoritative form of inquiry, became established during the 1970s and 1980s in the context of anti-colonial movements in the Global South. As anti-colonial movements worked to overthrow territorial and economic domination, they also strived to overthrow symbolic and epistemic injustices **[G],** ousting the authority of Western science to author knowledge about dominated peoples[4,14]. For Indigenous scholars, the development of PAR approaches often comprised an extension of Indigenous traditions of knowledge production that value inclusion and community engagement, while enabling explicit engagements with matters of power, domination and representation[15]. At the same time, exchanges between Latin American and Indian popular education movements produced Orlando Fals Borda's articulation of PAR as a paradigm in the 1980s. This orientation prioritised people's participation in producing knowledge, rather than the positioning of local populations as the subject of knowledge production practices imposed by outside experts[16]. Meanwhile, PAR appealed to those inspired by Black and postcolonial feminists who challenged established knowledge hierarchies, arguing for the wisdom of people marginalised by centres of power, who, in the process of survivance, that is surviving and resisting oppressive social structures, came to know and deconstruct those structures acutely.[17,18]

Some Euro-American approaches to PAR are less transformational and more reformist, in the action research paradigm**,** as developed by Kurt Lewin[19] to enhance organisational efficacy during and after World War II. Action Research later gained currency as a popular approach for professionals such as teachers and nurses to develop their own practices, and tended to focus on relatively small-scale adjustments, within a given institutional structure, rather than challenging power relations as in anti-colonial PAR[13,20]. In the late 20th century, participatory research gained currency in academic fields such as participatory development,[21,22] participatory health promotion[23] and creative methods[24]. Though participatory research includes participants in the conceptualisation, design and conduct of a project, it may not prioritise action and social change to the extent that PAR does. In the early 21st century, the development of PAR is occurring through sustained scholarly engagements in anti-colonial,[5,25] abolitionist,[26] anti-racist,[27,28] gender-expansive,[29] climate activist[30] and other radical social movements.

This Primer bridges these traditions by looking across them for mutual learning but avoiding assimilating them. We hope that readers will bring their own activist and intellectual heritages to inform their use of PAR, and adapt and adjust the suggestions we present to meet their needs.

[H2] Four key principles

Drawing across its diverse origins, we characterise PAR by four key principles. The first is the authority of direct experience. PAR values the expertise generated through experience, claiming that those who have been marginalised or harmed by current social relations have deep experiential knowledge of those systems, and deserve to own and lead initiatives to change them[3,5,17,18]. The second is knowledge

in action. Following the tradition of Action Research, it is through learning from the experience of making changes that PAR generates new knowledge[13]. The third key principle is research as a transformative process. For PAR, the research process is as important as the outcomes; projects aim to create empowering relationships and environments within the research process itself[31]. The final key principle is collaboration through dialogue. PAR's power comes from harnessing the diverse sets of expertise and capacities of its collaborators through critical dialogues[7,8,32].

Because PAR is often unfamiliar, misconstrued, or mistrusted by dominant scientific[33] institutions, PAR practitioners may find themselves drawn into competitions and debates set on others' terms, or into projects interested in securing communities' participation, but not their emancipation. Engaging communities and participants in participatory exercises for the primary purpose of advancing research aims prioritised by a university or others is not, we contend, PAR. We encourage PAR teams to articulate their intellectual and political heritage and aspirations, and agree their core principles, to which they can hold themselves accountable. Such agreements can serve as anchors for decision-making, or counter-weights to the pull towards inegalitarian or extractive research **[G]** practices.

[H2] Aims of the Primer

The contents of the Primer are shaped by the authors' commitment to emancipatory, engaged scholarship, and our own experience of PAR, stemming from our scholar-activism **[G]** with marginalised communities to tackle issues including state neglect, impoverishment, infectious and noncommunicable disease epidemics, homelessness, sexual violence, eviction, pollution, dispossession and post-disaster recovery. Collectively, our understanding of PAR is rooted in Indigenous, Black feminist and emancipatory education traditions, and diverse personal experiences of privilege and marginalisation across dimensions of race, class, gender, sexuality and disability. We use an inclusive understanding of PAR, to include engaging, emancipatory work that does not necessarily use the term PAR and we aim to showcase some of the diversity of scholar-activism around the globe. The contents of this Primer are suggestions and reflections based on our own experience of PAR and of teaching research methodology. There are multiple ways of conceptualising and conducting a PAR project. As context-sensitive social change processes, every project will pose new challenges.

This Primer is addressed primarily to university-based PAR researchers, who are likely to work in collaboration with members of communities, organisations or activists, and are accountable to

academic audiences as well as to community audiences. Much expertise in PAR originates outside universities, in community groups and organisations, from whom scholars have much to learn. The Primer aims to familiarise scholars new to PAR, and others who may benefit, with PAR's key principles, decision-points, practices, challenges, dilemmas, optimisations, limitations and work-arounds. Readers will be able to use our framework of 'building blocks' as a guide to designing their projects. We aim to support critical thinking about the challenges of PAR to enable readers to problem-solve independently. The primer aims to inspire with examples, which we intersperse throughout. To illustrate some of the variety of positive achievements of PAR projects, Box 1 presents 3 examples.

[H1] Experimentation

This section sets out the core considerations for designing a PAR project.

[H2] PAR cycles

Due to the intricacies of working within complex human systems in real time, PAR practitioners do not follow a highly proceduralised or linear set of steps[34]. In a cyclical process, teams work together to come to an initial definition of their social problem, design a suitable action, observe and gather information on the results, and then analyse and reflect on the action and its impact, in order to learn, modify their understanding and inform the next iteration of the research-action cycle (figure 1)[3,35]. Teams remain open throughout the cycle to repeating or revising earlier steps in response to developments in the field. The fundamental process of building relationships occurs throughout the cycles. These spiral diagrams orientate readers towards the central interdependence of processes of Participation, Action and Research, and the nonlinear, iterative process of learning by doing[3,36].

[H2] Building blocks for PAR research design

We present six building blocks to set out the key design considerations for conducting a PAR project **[Au:Ok? yes]**. Each PAR team may address these building blocks in different ways and with different priorities. Table 1 proposes potential questions and indicative goals that are possible markers of progress for each building block. They are not prescriptive or exhaustive, but may be a useful starting point, with examples, to prompt new PAR teams' planning.

[H3] Building relationships

"Relationships first, research second" is our key principle for PAR project design[39]. Collaborative relationships usually extend beyond a particular PAR project, and it is rare that one PAR project finalises a desired change. A researcher parachuting in and out may be able to complete a research article, with community cooperation, but will not be able to see through the hard graft of a programme of participatory research towards social change. Hence, individual PAR projects are often nested in long-term collaborations. Such collaborations are strengthened by institutional backing in the form of sustainable staff appointments, formal recognition of the value of university-community partnerships and provision of administrative support. In such a supportive context, opportunities can be created for achievable shorter-term projects to which collaborators or temporary researchers may contribute. The first step of PAR is sometimes described as the entry, but we term this foundational step building relationships to emphasise the longer-term nature of these relationships and their constitutive role throughout a project. PAR scholars may need to work hard with and against their institutions to protect those relationships, monitoring potential collaborations for community benefit rather than knowledge and resource extraction. Trustworthy relationships depend upon scholars being aware, open, and honest about their own interests and perspectives.

The motivation for a PAR project may come from university-based or community-based researchers. When university researchers already have a relationship with marginalised communities, they may be approached by community leaders initiating a collaboration[40,41].Alternatively, a university-based researcher may reach out to representatives of communities facing evident problems, to explore common interests and the potential for collaboration[42]. As Indigenous scholars have articulated, communities that have been treated as the subjects or passive objects of research, commodified for the scientific knowledge of distant elites, are suspicious of research and researchers[4,43]. Scholars need to be able to satisfy communities' key questions: "Who are you? Why should we trust you? What is in it for our community?" Qualifications, scholarly achievements or verbal reassurances are less relevant in this context than past or present valued contributions, participation in a heritage of transformational action, or evidence of solidarity with a community's causes. Being vouched for by a respected community member or collaborator can be invaluable.

Without prior relationships one can start cold, as a stranger, perhaps attending public events, informal meeting places, or identifying organisations where the topic is of interest, and introducing oneself. Strong collaborative relationships are based on mutual trust, which must be earned. It is important to be transparent about our interests and to resist the temptation to over-promise. Good PAR practitioners do not raise unrealistic expectations. Box 2 presents key soft skills for PAR researchers.

Positionality is crucial to PAR relationships. A university-based researcher's positionalities (including, for example, their gender, race, ethnicity, class, politics, skills, age, life stage, life experiences, assumptions about the problem, experience in research, activism and relationship to the topic) interact with the positionalities of community co-researchers, shaping the collective definition of the problem and appropriate solutions. Positionalities are not fixed, but can be changing, multiple, and even contradictory[44]. We have framed categories of university-based and community-based researchers here, but in practice these positionings of "insiders" and "outsiders" are often more complex and shifting.[45] Consideration of diversity is important when building a team to avoid tokenism **[G]**. For example, identifying which perspectives are included initially and why, and if members of the team or gatekeepers have privileged access due to their race, ethnicity, class, gender, able-bodiedness. .

The centring of community expertise in PAR does not mean that a community is 'taken-for-granted'. Communities are sites of the production of similarity and difference, equality and inequalities, and politics. Knowledge that has the status of common sense may itself reproduce inequalities or perpetuate harm. Relatedly, strong PAR projects cultivate reflexivity[46] **[G]** among both university-based and community-based researchers, to enable a critical engagement with the diversity of points of view, positions of power, and stakes in a project. Developing reflexivity may be uncomfortable and challenging, and good PAR projects create a supportive culture for processing such discomfort. Supplementary files 1 and 2 present example exercises that build critical reflexivity.

[H3] Establishing working practices

Partnerships bring together people with different sets of norms, assumptions, interests, resources, timeframes and working practices, all nested in institutional structures and infrastructures that cement those assumptions. University-based researchers often take their own working practices for granted, but partnership working calls for negotiation. Academics often work with very extended time frames for analysis, writing, and review before publication, hoping to contribute to gradually shifting agendas, discourses and politics[47]. The urgency of problems facing a community often calls for faster responsiveness. Research and management practices normal in a university may not be accessible to people historically marginalised through dimensions including disability; language; racialisation; gender; literacy practices and their intersections[48]. Disrupting historically entrenched power dynamics associated with these concerns can raise discomfort and calls for skilful negotiation. In short,

partnership working is a complex art, calling for thoughtful design of joint working practices and a willingness to invest the necessary time.

Making working practices and areas of tension explicit is one useful starting point. Not all issues need to be fully set out and decided at the outset of a project. A foundation of trust, through building relationships in building block 1, allows work to move ahead without every element being pinned down in advance. Supplementary file 1 presents an exercise designed to build working relationships and communicative practices.

[H3] Establishing a common understanding of the issue

Co-researchers identify a common issue or problem to address. University-based researchers tend to justify the selection of the research topic with reference to a literature review, whereas in PAR, the topic must be a priority for the community. Problem definition is a key step for PAR teams, where problem does not necessarily mean something negative or a deficit, but to the identification of an important issue at stake for a community. The definition of a problem, however, is not always self-evident, and producing a problem definition can be a valid outcome of PAR. Supplementary file 2 presents two tools for participatory problem definition. In Buckles' et al example of risks of eviction (Box 1), a small number of Katkari people first experienced the problem in terms of landlords erecting barbed wire fences. Other villages did not perceive the risk of eviction as a big problem, compared to their other needs. Facilitating dialogues across villages about their felt problems revealed how land tenure was at the root of several issues, thus mobilising interest. Problem definitions are political, they imply some forms of action and not others. Discussion and reflexivity about the problem definition are crucial. Compared to other methodologies, the PAR research process is much more public from the outset, and so practices of making key steps explicit, shareable, communicable and negotiable are essential. Supplementary file 2 introduces two participatory exercises for collective problem definition.

Consideration of who should be involved in problem definition is important. It may be enough that a small project team works closely together at this stage. Alternatively, group or public meetings may be held, with careful facilitation[5]. Out of dialogue, a PAR team aims to agree on an actionable problem definition, responding to the team's combination of skills, capacities and priorities. A PAR scholar works across the university-community boundary, and thus is accountable both to university values and grassroots communities' values. PAR scholars should not deny or hide the multiple demands of the role because communities with experience of marginalisation are attuned to being manipulated.

Surfacing interests and constraints and discussing these reflexively is often a better strategy. Creativity may be required to design projects that meet both academic goals (such as when a project is funded to produce certain outcomes) and the community's goals.

For example, in the context of a PAR project with residents of a public housing neighbourhood scheduled for demolition and redevelopment, Thurber and colleagues[49] describe how they overcame differences between resident and academic researchers regarding the purposes of their initial survey. The academic team members preferred the data to be anonymous, to maximise the scientific legitimacy of their project (considered valuable for their credibility to policymakers), while the resident team wanted to use the opportunity to recruit residents to their cause, by collecting contact details. The team discussed their different objectives and produced the solution of two-person survey teams, one person gathering anonymous data for the research, and a second person gathering contact details for the campaign's contact list.

Articulating research questions is an early milestone. PAR questions prioritise community concerns so they may differ from academic-driven research questions. For example, Buckles and colleagues[41] facilitated a participatory process that developed questions along the lines of: What are the impacts of not having a land title for Katkari people? How will stakeholders respond to Katkari organising, and what steps can Katkari communities take towards the goal of securing tenure? In another case, incarcerated women in New York state, USA, invited university academics to evaluate a local college in prison in the interest of building an empirical argument for the value of educational opportunities in prisons[40,50] Like other evaluations, it asked: "What is the impact of college on women in prison?" But instead of looking narrowly at the impact on re-offending as the relevant impact (as prioritised by politicians and policymakers), based on the incarcerated women's advice, the evaluation tracked other outcomes: women's wellbeing within the prison, their relationships with each other and the staff, their children, their sense of achievement, and their agency in their lives post incarceration.

As a PAR project develops, the problem definition and research questions are often refined, through the iterative cycles. This evolution does not undermine the value of writing problem definitions and research questions in the early stages, as a collaboration benefits from having a common reference point to build from and from which to negotiate.

[H3] Observing, gathering and generating materials

With a common understanding of the problem, PAR teams design ways of observing the details and workings of this problem. PAR is not prescriptive about the methods used to gather or generate

observations. Projects often use qualitative methods, such as storytelling, interviewing or ethnography, or participatory methods, such as body mapping, problem trees, guided walks, timelines, diaries, participatory photography and video or participatory theatre. Gathering quantitative data is an option, particularly in the tradition of participatory statistics[51]. Chilisa[5] distinguishes sources of spatial data, time-related data, social data and technical data. The selected methods should be: engaging to the community and the co-researchers; suited to answering the research questions and supported by available professional skills. Means of recording the process or products, and of storing those records need to be agreed, as well as ethical principles. Developing community members' research skills for data collection and analysis can be a valued contribution to a PAR project, potentially generating longer term capacities for local research and change-making.[52]

Our selection of data generation methods and their details depends upon the questions we ask. In some cases, methods to explore problem definitions, and then to brainstorm potential actions, their risks and benefits, will be useful (Supplementary file 2). Others may be less prescriptive about problems and solutions, seeking to explore experience in an open-ended way, as a basis for generating new understandings (see Supplementary file 3 for an example reflective participatory exercise).

Less experienced practitioners may take a naïve approach to PAR, which assumes that knowledge should emerge solely from an authentic community devoid of outside ideas. More established PAR researchers, however, work consciously to combine and exchange skills and knowledge through dialogue. Together with communities, we want to produce effective products, and we recognise that doing so may require specific skills. In Marzi's[53] participatory video project with migrant women in Colombia, she engaged professional filmmakers to provide the women training in filming, editing and professional film production vocabulary. The women were given the role of directors, with the decision-making power over what to include and exclude in their film. In a Photovoice project with Black and Indigenous youth in Toronto, Canada, Tuck and Habtom[25] drew on their prior scholar-activist experience and their critical analysis of scholarship of marginalisation that often uses tropes of victimhood, passivity, and sadness. Instead of repeating narratives of damage, they intended to encourage desire-based narratives. They supported their young participants to critically consider which photographs they wanted to include or exclude from public representations. Training participants to be expert users of research techniques does not devalue their existing expertise and skills, but takes seriously their role in co-producing valid, critical knowledge. University-based researchers equally benefit from training in facilitation methods, team development, and the history and context of the community.

Data generation is relational, mediated by the positionalities of the researchers involved. As such, researchers position themselves across boundaries, and need to have, or to develop, skills in interpreting across boundaries. In the *Tsui Anaa* Project (cited in Box 1) in Ghana, the project recruited Ga-speaking graduate students as researchers; Ga is the language most widely spoken in the community. The students were recruited not only for their language skills, but also for their Ga cultural sensibilities, reflected in their sense of humour and their intergenerational communicative styles, enabling fluid communication and mutual understanding with the community. In turn, two community representatives were recruited as advocates representing patient perspectives across university and community boundaries.

University-based researchers trained in methodological rigour may need reminders that the *process* of a PAR project is as important as the outcome, and is part of the outcome. Facilitation skills are the most crucial skills for PAR practitioners at this stage. Productive facilitation skills encourage open conversation and collective understandings of the problem at hand and how to address it. More specifically, good facilitation requires a sensitivity to the ongoing and competing social context, such as power relations. within the group to help shift power imbalances and enable participation by all[54]. Box 3 presents a PAR project that exemplifies the importance of relationship-building in a community arts project.

[H3] Collaborative analysis

In PAR projects, data collection and analysis are not typically isolated to different phases of research. Rather, a tried and tested approach to collaborative analysis[55] **[G]** is to use generated data as a basis for reflection on commonalities, patterns, differences, underlying causes, or potentials, on an ongoing basis. For instance, body mapping, photography, or video projects often proceed through a series of workshops, with small-scale training-data collection-data analysis cycles in each workshop. Participants gather or produce materials in response to a prompt, and then come together to critically discuss the meaning of their productions.

Simultaneously, or later, a more formal data analysis may be employed, using established social science analytical tools such as grounded theory, thematic, content, or discourse analysis, or other forms of visual or ethnographic analysis, with options for facilitated co-researcher involvement. The selection of a specific orientation or approach to analysis is often a low priority for community-based co-researchers. It may be appropriate for university-based researchers to take the lead on comprehensive analysis and the derivation of initial messages. Fine and Torre[29] describe the university-based researchers producing a “best bad draft” so that there is something on the table to

react to and discuss. Given the multiple iterations of participants' expressions of experiences and analyses by this stage, the university-based researchers should be in a position that their "best bad draft" is grounded in a good understanding of local perspectives and should not appear outlandish, one-sided or an imposition of outside ideas.

For the results and recommendations to reflect community interests, it is important to incorporate a step where community representatives can critically examine and contribute to emerging findings and core messages for the public, stakeholders or academic audiences.

[H3] Planning and taking action

Taking action is an integral part of a PAR process. What counts as action and change is different for each PAR project. Actions could be targeted at a wide range of scales and different stakeholders, with differing intended outcomes. Valid intended outcomes include: creating supportive networks to share resources through mutual aid; empowering participants through sharing experiences and making sense of them collectively; using the emotional impact of artistic works to influence policymakers and journalists; mobilising collective action to build community power; forging a coalition with other activist and advocacy groups, and many others. Selection among the options depends on underlying priorities, values, theories of how social change happens, and crucially, feasibility.

Articulating a theory of change is one way to demonstrate how we intend to bring about changes through designing an action plan. A theory of change identifies an action and a mechanism, directed at producing particular outcomes, for a target group, in a context. This device has often been used in donor-driven health and development contexts in a rather prescriptive way, but PAR teams can adapt the tool as a scaffolding for being explicit about action plans, and as a basis for further discussions and development of those plans. Many health and development organisations (such as Social Velocity[56]) have frameworks to help design a theory of change.

Alternatively, a Community Action Plan[5] can serve as a tangible roadmap to producing change, by setting out objectives, strategies, timeline, key actors, required resources and the monitoring and evaluation framework.

Social change is not easy and existing social systems benefit, some at the expense of others, and are maintained by power relations. In planning for action, analysis of the power relations at stake, the beneficiaries of existing systems and their potential resistance to change is crucial. It is often wise to

assess a variety of options for actions, their potential benefits, risks and ways of mitigating those risks. Sometimes a group may collectively decide to settle for relatively secure, and less risky small wins, but with the building of sufficient power, a group may take on a bigger challenge[57].

[H2] Ethics

Ethical considerations are fundamental to every aspect of PAR. They include standard research ethics considerations traditionally addressed by Research Ethics Committees or Institutional Review Boards (IRBs), including key principles of avoidance of harm, anonymity and confidentiality, and voluntary informed consent, though these issues may become much more complex than traditionally presented, when working within a PAR framework[58]. PAR studies typically benefit from IRBs that can engage with the relational specificities of a case, with a flexible and iterative approach to research design with communities, rather than being beholden to very strict and narrow procedures. Wilson and colleagues'[59] provide a comprehensive review of ethical challenges in PAR.

Beyond procedural research ethics perspectives, relational ethics **[G]** are important to PAR projects and raise critical questions regarding the purpose and conduct of knowledge production and application.[39,60,61] Relational ethics encourage an emphasis on inclusive practices, dialogue, mutual respect and care, collective decision-making, and collaborative action[60]. Questions posed by Indigenous scholars seeking to decolonise Western knowledge production practices are pertinent to a relational ethics approach[4,28]. These include: Who designs and manages the research process? Whose purposes does the research serve? Whose worldviews are reproduced? Who decides what counts as knowledge? Why is this knowledge produced? Who benefits from this knowledge? Who determines which aspects of the research will be written up, disseminated and used, and how? Addressing such questions requires scholars to attend to the ethical practices of cultivating trusting and reciprocal relationships with participants and ensuring the organisations, communities and persons involved co-govern and benefit from the project.

Reflecting on the ethics of her PAR project with young undocumented students in the USA, Cahill[58] highlights some of the intensely complex ethical issues of representation that arose, and that will face many related projects. Determining what should be shared with which audiences is intensely political and ethical. Cahill's team considered editing out stories of dropping out to avoid feeding negative stereotypes. They confronted the dilemma of framing a critique of a discriminatory educational system, while simultaneously advocating that this flawed system should include undocumented

students. They faced another common dilemma of how to stay true to their structural analysis of the sources of harms, while engaging decision-makers invested in the current status quo. These complex ethical-political issues arise in different forms in many PAR projects. No answer can be prescribed, but scholar-activists can prepare themselves by reading past case studies and being open to challenging debates with co-researchers.

[H1] Results

[H2] Knowledge

The knowledge built by PAR is explicitly knowledge-for-action, informed by the relational ethical considerations of who and what the knowledge is for. PAR builds both local knowledge **[G]** and conceptual knowledge. As a first step, PAR can help us to reflect locally, collectively on our circumstances, priorities, diverse identities, causes of problems and potential routes to tackling them.

Such local knowledge might be represented in the form of statistical findings from a community survey, analyses of participants' verbal or visual data, or analyses of workshop discussions. Findings may include elements such as: an articulation of the status quo of a community issue; a participatory analysis of root causes and/or actionable elements of the problem; a power analysis of stakeholders; an asset mapping; an assessment of local needs and priorities. Analysis goes beyond the surface problems, to identify underlying roots of problems to inform potential lines of action.

Simultaneously PAR also advances more global conceptual knowledge. As liberation theorists have noted, developments in societal understandings of inequalities, marginalisation and liberation are often led by those battling such processes daily. For example, the young Black and Indigenous participants working with Tuck and Yabtom[25] in Toronto, Canada engaged as co-theorists in their project about the significance of social movements to young people and their postsecondary futures. Through their photography project, they expressed how place, and its history, particularly histories of settler colonialism, matters in cities – against a more standard view that treated the urban as somehow interchangeable, modern, or neutral. The authors argue for altered conceptions of urban and urban education scholarly literatures, in response to this youth-led knowledge.

[H2] Action

A key skill in the art of PAR is in creating achievable actions by choosing a project that is engaging and ambitious with achievable elements, even where structures are resistant to change. PAR projects can produce actions across a wide range of scales (from "small, local" to "large, structural") and across

different temporal scales. Some PAR projects are part of decades-long programmes. Within those programmes, an individual PAR project, taking place over 12 or 24 months, might make one small step in the process towards long-term change.

An educational project with young people living in communities vulnerable to flooding in Brazil, for example, developed a portfolio of actions, including a seminar, a native seeds fair, support to an individual family affected by a landslide, a campaign for a safe environment for a children's pre-school, a tree nursery at school, and influencing the city's mayor to extend the environmental project to all schools in the area[30].

Often the ideal scenario is that such actions lead to material changes in the power of a community. Over the course of a five-year journey, the Katkari community (Box 1) worked with PAR researchers to build community power to resist eviction. The community team compiled households' proof of residence; documented the history of land use and housing; engaged local government about their situations and plans; and participated more actively in village life to cultivate support[41]. The university-based researchers collected land deeds, and taught sessions on land rights, local government and how to acquire formal papers. They opened conversations with the local government on legal, ethical and practical issues. Collectively, their legal knowledge and groundwork gave them confidence to remove fencing erected by landlords and to taking legal action to regularise their land rights, ultimately leading to 70 applications being made for formal village sites. This comprised a tangible change in the power relation between landlords and the communities. Even here, however, the authors do not simply celebrate their achievements, but recognise that power struggles are ongoing, landlords would continue to aggressively pursue their interests, and thus their achievements were provisional and would require vigilance and continued action.

[H2] Capacities

Most crucially, PAR projects aim to develop university-based and community-based researchers' collective agency, by building their capacities for collaboration, analysis and action. More specifically, collaborators develop multiple transferable skills, which include skills in conducting research, operating technology, designing outputs, leadership, facilitation, budgeting, networking and public speaking[31,62,63].

University-based researchers build their own key capacities through exercising and developing skills including those for collaboration, facilitation, public engagement and impact. Strong PAR projects may build capacities within the university to sustain long term relationships with community projects, such

as modified and improved infrastructures that work well with PAR modalities, appreciation of the value of long-term sustained reciprocal relations, and personal and organisational relationships with communities outside the university.

[H1] Applications

PAR disrupts the traditional theory-application binary, which usually assumes that abstract knowledge is developed through basic science, to then be interpreted and applied in professional or community contexts. PAR projects are always applied in the sense that they are situated in concrete human and social problems and aim to produce workable local actions. PAR is a very flexible approach. A version of a PAR project could be devised to tackle almost any real-world problem – where the researchers are committed to an emancipatory and participatory epistemology. If one can identify a group of people interested in collectively generating knowledge-for-action in their own context or about their own practices, and as long as the researchers are willing and able to share power, the methods set out in this Primer could be applied, to devise a PAR project.

PAR is consonant with participatory movements across multiple disciplines and sectors, and thus finds many intellectual homes. Its application is supported by social movements for inclusion, equity, representation of multiple voices, empowerment and emancipation. For instance, PAR responds to the value "nothing about us without us" which has become a central tenet of Disability Studies. In Youth Studies, PAR is used to enhance the power of young people's voices. In Development Studies, PAR has a long foundation as part of the demand for greater participation, to support locally appropriate, equitable and locally owned changes. In healthcare research, PAR is used by communities of health professionals to reflect and improve on their own practices. PAR is used by groups of healthcare service users or survivors, to give a greater collective power to the voices of those at the sharp end of healthcare, often delegitimised by medical power. In environmental sciences, PAR can support local communities to take action to protect their environments. In community psychology, PAR is valued for its ability to nurture supportive and inclusive processes. In summary, PAR can be applied in a huge variety of contexts, where local ownership of research is valued.

Limitations to PAR's application often stem from the institutional context. In certain (often dominant) academic circles, local knowledge is not valued, and contextually situated, problem-focused research may be considered niche, applied or not generalisable. Hence, research institutions may not be set up to be responsive to a community's situation or needs or to support scholar-activists working at the research-action boundary. Further, those who benefit from, or are comfortable, with the status quo

of a community may actively resist attempts at change from below and undermine PAR projects. In other cases, where a community is very divided or dispersed, PAR may not be the right approach. There are plenty of examples of PAR projects floundering, failing to create an active group or to achieve change, or completely falling through. Even such failures, however, shed light on the conditions of communities and the power relations they inhabit, and offer lessons on ways of working and not working with groups in those situations.

[H1] Reproducibility and data deposition

Certain aspects of the open science movement can be productively engaged from within a PAR framework, while others are incompatible. A key issue is that PAR researchers do not strive for reproducibility, and many would contest the applicability of this construct. Nonetheless, there may be resonances between the open science principle of making information publicly available for re-use, and those PAR projects which aim to render visible and audible the experience of a historically under-represented or mis-represented community. PAR projects that seek to represent previously hidden realities of, for example, environmental degradation, discriminatory experiences at the hands of public services, the social history of a traditionally marginalised group, or their neglected achievements, may consider creating and making public robust databases of information, or social history archives, with explicit informed permission of the relevant communities. For such projects, making knowledge accessible is an essential part of the action. Publicly relevant information should not be sequestered behind paywalls. PAR practitioners should thus plan carefully for cataloguing, storing, and archiving information, and maintaining archives.

On the other hand, however, a blanket assumption that all data should be made freely available is rarely appropriate in a PAR project, and may come into conflict with ethical priorities. Protecting participants' confidentiality can mean that data cannot be made public. Protecting a community from reputational harm, in the context of widespread dehumanisation, criminalisation or stigmatisation of dispossessed groups, may require protection of their privacy, especially if their lives or coping strategies are already pathologised[25]. Empirical materials do not belong to university-based researchers as data, and cannot be treated as an academic commodity to be opened to other researchers. Open science practices should not extend to the opening of marginalised communities to knowledge exploitation by university researchers.

The principle of reproducibility is not intuitively meaningful to PAR projects, given their situated nature, that is, the fact that PAR is inherently embedded in particular concrete contexts and relationships[64]. Beyond reproducibility, other forms of mutual learning and cross-case learning are vitally important. We see increasing research fatigue in communities used, extractively, for research that does not benefit them. PAR teams should assess what research has been done in a setting to avoid duplication and wasting people's time and should clearly prioritise community benefit. At the same time, PAR projects also aspire to producing knowledge with wider implications, typically discussed under the term generalisability or transferability. They do so by articulating how the project speaks to social, political, theoretical and methodological debates being had in wider knowledge communities, in a form of "communicative generalisation"[65]. Collaborating and sharing experiences across PAR sites through visits, exchanges, and joint analysis can help generalise experiences[30,64].

[H1] Limitations and optimizations

PAR projects often challenge the social structures that reproduce established power relations. In this section, we outline common challenges to PAR projects, to prompt early reflection. When to apply a workaround, compromise, concede, refuse, or regroup and change strategy are decisions that each PAR team should make collectively. We do not have answers to all the concerns raised but offer mitigations that have been found useful.

[H2] Institutional infrastructure

Universities' interests in partnerships with communities, local relevance, being outward-facing, public engagement and achieving social impact can help create a supportive environment for PAR research. Simultaneously, university bureaucracies and knowledge hierarchies that prize their scientists as individuals rather than collaborators, and that prioritise the methods of dominant science, can undermine PAR projects[66]. When Cowan, Kuhlbrandt & Riazuddin[47] proposed using gaming, drama, fiction and film-making for a project engaging young people in thinking about scientific futures, a grants manager responded "But this project can't just be about having fun activities for kids - where is the research in what you're proposing?" Research infrastructures are often slow and reluctant to adapt to innovations in creative research approaches.

Research institutions' funding timeframes are also often out of sync with those of communities – being too extended in some ways, and too short in others[47,67]. Securing funding takes months and years, especially if there are initial rejections or setbacks. Publishing findings takes further years. For

community-based partners, a year is a long time to wait and to maintain people's interest. On the other hand, grant funding for one-off projects over a year or two, (or even five) is rarely sufficient to create anything sustainable, reasserting precarity and short-termism. Institutions can better support PAR through infrastructure such as bridging funds between grants, secure staff appointments and institutional recognition and resources for community partners.

University infrastructures can value the long-term partnership working of PAR scholars by recognising partnership-building as a respected element of an academic career and recognising collaborative research as much as individual academic celebrity. Where research infrastructures are unsupportive, building relationships within the university with like-minded professional and academic colleagues, to share workarounds and advocate collectively can be very helpful. Other colleagues might have developed mechanisms to pay co-researchers, or to pay in advance for refreshments, speed up disbursement of funds, or deal with an Ethics Committee, Institutional Review Board, Finance Office, or thesis examiner who misunderstands participatory research. PAR scholars can find support in university structures beyond the research infrastructure, such as those concerned with knowledge exchange and impact, campus-community partnerships, extension activities, public engagement, or diversity and inclusion[67]. If PAR is institutionally marginalised, exploring and identifying these workarounds is extremely labour intensive and depends on the cultivation of human, social and cultural capital over many years, which is not normally available to graduate students or precariously employed researchers. Thus, for PAR to be realised, institutional commitment is vital.

[H2] Co-option by powerful structures

When PAR takes place in collaboration or engagement with powerful institutions such as government departments, health services, religious organisations, charities, or private companies, co-option **[G]** is a significant risk. Such organisations experience a social pressure to be inclusive, diverse, responsive to communities, and participatory, so they may be tempted to engage communities in consultation, without redistributing power. For instance, when "photovoice" projects invite politicians to exhibitions of photographs, their activity may be co-opted to serving the politician's interest in being seen to express support, but result in no further action. There is a risk that using PAR in such a setting risks tokenising marginalised voices[68]. In one of our current projects, co-researchers explore the framing of sexual violence interventions in Zambia, aiming to promote greater community agency and reduce the centrality of approaches dominated by the Global North[69]. One of the most challenging dilemmas is the need to involve current policymakers in discussions without alienating them. The

advice to “be realistic”, “be reasonable”, or “play the game” to keep existing power brokers at the table creates one of the most difficult tensions for PAR scholars[50].

We also caution against scholars idealising PAR as an ideal, egalitarian, inclusive, or perfect process. The term “participation” has become a policy buzzword, invoked in a vaguely positive way to strengthen an organisation’s case that they have listened to people. It can equally be used by researchers to claim a moral high ground without disrupting power relations. Depriving words of their associated actions, Freire[7] warns us, leads to ‘empty blah’, because words gain their meaning in being harnessed to action. Labelling our work PAR does not make it emancipatory, without emancipatory action. Equally, Freire cautions against acting without the necessary critical reflection.

To avoid romanticisation or co-option, PAR practitioners benefit from being held accountable to their shared principles and commitments by their critical networks and collaborators. Our commitments to community colleagues and to action should be as real for us as any institutional pressures on us. Creating an environment for that accountability is vital. Box 4 offers a project exemplar featuring key considerations regarding power concerns.

[H2] Power inequalities within PAR

Power inequalities also affect PAR teams and communities. For all the emphasis on egalitarian relationships and dialogue, communities and PAR teams are typically composed of actors with unequal capacities and powers, introducing highly complex challenges for PAR teams.

Most frequently, university-based researchers engaging with marginalised communities do not themselves share many aspects of the identities or life experiences of those communities. They often occupy different, often more privileged, social networks, income brackets, racialised identities, skillsets, and access to resources. Evidently, the premise of PAR is that people with different lives can productively collaborate, but gulfs in life experience and privilege can yield difficult tensions and challenges. Expressions of discomfort, dissatisfaction or anger in PAR projects are often indicative of power inequalities, and an opportunity to interrogate and challenge hierarchies. Scholars must work hard to undo their assumptions about where expertise and insights may lie. A first step can be to develop an analysis of a scholar’s own participation in the perpetuation of inequalities. Projects can be designed to intentionally redistribute power, by redistributing skills, responsibilities, authority, or redesigning core activities to be more widely accessible. For instance, Marzi[53] in a participatory video

project, used role swapping to distribute the leadership roles of chairing meetings, choosing themes for focus, and editing, among all the participants.

Within communities, there are also power asymmetries. The term "community participation" itself risks homogenising a community, such that one, or a small number of representatives are taken to qualify as the community. Yet communities are characterised by diversity as much as by commonality, with differences across sociological lines such as class, race, gender, age, occupation, housing tenure, health status. Having the time, resources and ability to participate is unlikely to be evenly distributed. Some people need to devote their limited time to survival and care of others. For some, the embodied realities of health conditions and disabilities make participation in research projects difficult or undesirable[70]. If there are benefits attached to participation, careful attention to the distribution of such benefits is needed, as well as critical awareness of the positionality of those involved and those excluded. Active efforts to maximise accessibility are important, including paying participants for their valued time; providing accommodations for people with health conditions, disabilities, caring responsibilities or other specific needs; and designing participatory activities that are intuitive to a community's typical modes of communication.

[H2] Lack of control and unpredictability

For researchers accustomed to leading research by taking responsibility to drive a project to completion, using the most rigorous methods possible, to achieve stated objectives, the collaborative, iterative nature of PAR can raise personal challenges. Sense[71] likens the facilitative role of a PAR practitioner to "trying to drive the bus from the rear passenger seat – wanting to genuinely participate as a passenger but still wanting some degree of control over the destination". PAR works best with collaborative approaches to leadership, and identities among co-researchers as active team members, facilitators, and participants in a research setting, prepared to be flexible and responsive to provocations from the situation and from co-researchers and to adjust project plans accordingly[28,71,72]. The complexities involved in balancing control issues foreground the importance of reflexive practice for all team members to learn together through dialogue[73]. Training and socialisation into collaborative approaches to leadership and partnership are crucial supports. Well-functioning collaborative ways of working are also vital, as their trusted structure can allow co-researchers to "trust the process", and accept uncertainties, differing perspectives, changes of emphasis and disruptions of assumptions. We often want surprises in PAR projects, as they show that we are learning something new, and so we need to be prepared to accept disruption.

[H1] Outlook

PAR's outlook is caught up in the ongoing history of the push and pull of popular movements for the recognition of local knowledge and elite movements to centralise authority and power in frameworks such as universal science, professional ownership of expertise, government authority or evidence-based policy. As a named methodological paradigm, PAR gained legitimacy and recognition during the 1980s, with origins in popular education for development, led by scholars from the Global South[16,32], and taken up in the more Global-North-dominated field of International Development, where the failings of externally imposed, contextually insensitive development solutions had become undeniable[21]. Over the decades, PAR has both participated in radical social movements, and risked co-option and depoliticization as it became championed by powerful institutions, and it is this light that we consider PAR's relation to three contemporary societal movements.

[H2] Decolonising or re-powering

The development of PAR took place in tandem with anti-colonial movements and discourses during the 1970s and 1980s, where the colonisation of land, people and knowledge were all at stake. During the mid-2010s, calls for decolonisation **[G]** of the university were forced onto the agenda of the powerful by various groups, including African students and youth leading the "Rhodes Must Fall", "Fees must Fall" and "Gandhi must Fall" movements[74], followed by the eruption of Black Lives Matter protests in 2020[75]. PAR is a methodology that stands to contribute to de-colonisation through the development of alternatives to centralising knowledge and power. As such, the vitality of local and global movements demanding recognition of grassroots knowledge and the dismantling of oppressive historical power/knowledge systems heralds many openings and exciting potential collaborations and causes for PAR practitioners[76,77]. As these demands make themselves felt in powerful institutions, they create openings for PAR.

Yet, just as PAR has been subject to co-option and depoliticisation, the concept of decolonisation too is at risk of appropriation by dominant groups and further tokenisation of Indigenous groups, as universities, government departments and global health institutions absorb the concept, fitting it into their existing power structures[43,78]. In this context, Indigenous theorists in Aotearoa/New Zealand are working on an alternative concept of "re-powering Indigenous knowledge" rather than "decolonising knowledge". By so doing, they centre Indigenous people and their knowledge, rather than the knowledge or actions of colonisers, and foreground the necessity of changes to power relations. African and African American scholars working on African heritage and political agency have drawn on the Akan philosophy of Sankofa for a similar purpose[79]. Sankofa derives from a Twi proverb *Se wo*

were fi na wosan kofa a yenkyiri (It is not taboo to fetch what is at risk of being left behind). Going back to fetch what is lost is a self-grounded act that draws on the riches of Indigenous history to reimagine and restructure the future[80]. It is also an act independent of the colonial and colonising gaze. Contributing to a mid-21st *century re-powering community knowledge* is a promising vision for PAR. More broadly, the loud voices and visionary leadership of contemporary anti-racist, anti-colonial, Indigenous, intersectional feminist, and other emancipatory movements provide a vibrant context to reinvent and renew PAR.

[H2] Co-production

In fields concerned with health and public service provision, a renewed discourse of respectful engagement with communities and service users has centred in recent years on the concept of co-production[81] **[G].** In past iterations, concepts such as citizen engagement, patient participation, community participation and community mobilisation played a similar role. Participatory methods have proven their relevance within such contexts, for example, providing actionable and wise insights to clinicians seeking to learn from patients, or to providers of social services seeking to target their services better. Thus, the introduction of co-production may create a receptive environment for PAR in public services. Yet, again, if users are participating in something, critical PAR scholars should question in which structures they are participating, instantiating which power relations and to whose benefit. PAR scholars can find themselves compromised by institutional requirements. Identifying potential compromises, lines that cannot be crossed, and areas where compromises can be made; negotiating with institutional orders; and navigating discomfort and even conflict are key skills for practitioners of PAR within institutional settings.

One approach to engaging with institutional structures has been to gather evidence for the value of PAR, according to the measures and methods of dominant science. Anyon and colleagues[62] systematically reviewed Youth PAR literature in the United States. They found emerging evidence that PAR produces positive outcomes for youth and argued for further research using experimental designs to provide harder evidence. They make the pragmatic argument that funding bodies require certain forms of evidence to justify funding, and so PAR would benefit by playing by those rules.

A different approach, grounded in politics rather than the academy, situates co-production as sustained by democratic struggles. In the context of sustainability research in the Amazon, for instance, Perz and colleagues[82] argue that the days of externally driven research are past. Mobilisation

by community associations, Indigenous federations, producer cooperatives and labour unions to demand influence over the governance of natural resources goes hand in hand with expectations of local leadership and ownership of research, often implemented through PAR. These approaches critically question the desirability of institutional, external funding or even non-monetary support for a particular PAR project.

[H2] Global-local inequality and solidarity

Insufferable global and local inequalities continue to grow, intensified by climate catastrophes, the COVID-19 pandemic and extreme concentrations of wealth and political influence, and contested by increasingly impactful analyses, protests and refusals by those disadvantaged and discriminated against. Considering the impact of the COVID-19 pandemic on PAR projects, Auerbach and colleauges[67] identify increasing marketisation and austerity in some universities, and the material context of growing pressure on marginalised communities to simply meet their needs for survival, leaving little capacity for participating in and building long term partnerships. They describe university-based researchers relying on their own capacities to invent new modes of digital collaboration and nourish their partnerships with communities, often despite limited institutional support.

We suggest that building solidaristic networks and thus building collective power, within and beyond universities offers the most promising grounding for a fruitful outlook for PAR. PAR scholars can find solidarity across a range of disciplines, traditions, social movements, topics and geographical locations. Doing so offers to bridge traditions, share strategies and resonances, build methodologies and politics, and crucially, build power. In global health research, Abimbola and colleagues[83] call for the building of Southern networks, to break away from the dominance of North-South partnerships. They conceptualise the South not only as a geographical location, as there are of course knowledge elites in the South, but as the communities traditionally marginalised from centres of authority and power. We suggest that PAR can best maximise its societal contribution and its own development and renewal by harnessing the diverse wisdom of knowledge generation and participatory methods across Southern regions and communities, using that wisdom to participate in global solidarities and demands for redistribution of knowledge, wealth and power.

Glossary

Community: used as a noun or a verb, refers to a network of often diverse and unequal persons engaged in common tasks or actions, stakes or interests that lead them to form social ties or commune with one another.

Power relations:the relationships of domination, subordination and resistance between individuals or social groups, allowing some to advance their perspectives and interests more than others.

Emancipatory scholarship: scholarship that creates knowledge of the conditions thar limit or oppress us to liberate ourselves from those conditions and to support others in their own transformations.

Transformation: a systemic change in which relationships and structures are fundamentally altered, often contrasted with smaller-scale changes such as varying or refining existing relations.

Epistemic injustice: injustices in relation to knowledge, including whose knowledge counts, and which knowledge is deemed valid or not.

Extractive research: research that extracts information and exploits relationships, places and peoples, producing benefit for scholars or institutions elsewhere, and depleting resources at the sites of the research.

Scholar-activism: a dual role in which scholars use their knowledge (scholarship) to tackle injustices and instigate changes (activism) in collaboration with marginalised communities and/or organisations.

Tokenism: doing something or appointing a person for reasons other than in the interest of enabling meaningful change.

Reflexivity: a methodological practice through which scholars critically reflect on their own positionality and how it impacts on participants and co-researchers, understanding of the topic, and the knowledge produced.

Collaborative analysis: Involving multiple team members in the analysis and interpretation of materials generated, typically in iterative cycles of individual or pair-work and group discussion.

Relational ethics: an approach to ethical conduct that situates ethics as ongoingly negotiated within the context of respectful relationships, beyond following the procedural rules often set out by ethics committees.

Local knowledge: knowledge that is rooted in experience in a particular social context, often devalued by social science perspectives that make claims to generalisability or universality.

Co-option is a process through which a person or group's activities are altered or appropriated to serve another group's interests.

Decolonisation: a call to recognise and dismantle the destructive legacies of colonialism in societal institutions, to repower indigenous groups and construct alternative relationships among peoples and knowledges that liberate knowers and doers from colonial extraction and centralisation of power.

Co-production: a term typically used in service provision to describe partnership working between service providers and service users, to jointly produce decisions or designs.

References

1. Kemmis, S. Critical theory and participatory action research. in *The Sage handbook of action research* 121–138 (SAGE Publications Ltd, 2007).
2. Kindon, S., Pain, R. & Kesby, M. *Participatory Action Research Approaches and Methods: Connecting People, Participation and Place*. (Routledge, 2007).
3. McIntyre, A. *Participatory Action Research*. (SAGE Publications, 2007).
4. Smith, L. T. *Decolonizing Methodologies: Research and Indigenous Peoples*. (Bloomsbury Publishing, 2021).
5. Chilisa, B. *Indigenous Research Methodologies*. (SAGE, 2019).
6. Fals-Borda, O. & Rahman, M. A. *Action and Knowledge*. 1–192 (PRACTICAL ACTION PUBLISHING, 1991). doi:10.3362/9781780444239.
7. Freire, P. *Pedagogy of the Oppressed*. (continuum, 1970).
8. Rahman, M. A. Some trends in the praxis of Participatory Action Research. in *The Sage handbook of action research: participative inquiry and practice* (eds. Reason, P. & Bradbury, H.) (SAGE Publications, 2008).
9. Fanon, F. *The Wretched of the Earth*. (Penguin, 1963).
10. Crenshaw, K. Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Rev.* **43**, 1241–1299 (1991).
11. Mama, A. *Beyond the Masks: Race, Gender, and Subjectivity*. (Psychology Press, 1995).
12. Lewin, K. Action research and minority problems. *J. Soc. Issues* **11**, 34–46.
13. *The Sage handbook of action research: participative inquiry and practice*. (SAGE Publications, 2008).
14. Le Grange, L. Challenges for participatory action research and indigenous knowledge in Africa. *Acta Acad.* **33**, 136–150.
15. Caxaj, C. S. Indigenous Storytelling and Participatory Action Research: Allies Toward Decolonization? Reflections From the Peoples' International Health Tribunal. *Glob. Qual. Nurs. Res.* **2**, 2333393615580764 (2015).
16. Díaz-Arévalo, J. M. In search of the ontology of participation in Participatory Action Research: Orlando Fals-Borda's Participatory Turn, 1977–1980. *Action Res.* 147675032211035 (2022) doi:10.1177/14767503221103571.
17. McKittrick, K. *Dear Science and Other Stories*. (Duke University Press, 2021).
18. Mohanty, C. T. Under Western Eyes: Feminist Scholarship and Colonial Discourses. *Bound. 2* **12/13**, 333–358 (1984).
19. Lewin, K. Action Research and Minority Problems. *J. Soc. Issues* **2**, 34–46 (1946).
20. Adelman, C. Kurt Lewin and the Origins of Action Research. *Educ. Action Res.* **1**, 7–24 (1993).
21. Chambers, R. The origins and practice of participatory rural appraisal. *World Dev.* **22**, 953–969 (1994).
22. Cornwall, A. & Jewkes, R. What is participatory research? *Soc. Sci. Med.* **41**, 1667–1676 (1995).
23. Wallerstein, N. & Duran, B. Community-Based Participatory Research Contributions to Intervention Research: The Intersection of Science and Practice to Improve Health Equity. *Am. J. Public Health* **100**, S40–S46 (2010).
24. Wang, C. & Burris, M. A. Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. *Health Educ. Behav.* **24**, 369–387 (1997).
25. Tuck, E. & Habtom, S. Unforgetting Place in Urban Education through Creative Participatory Visual Methods. *Educ. Theory* **69**, 241–256 (2019).

26. Kaba, M. *We Do This 'Til We Free Us: Abolitionist Organizing and Transforming Justice*. (Haymarket Books, 2021).
27. Toraif, N. *et al.* How to Be an Antiracist: Youth of Color's Critical Perspectives on Antiracism in a Youth Participatory Action Research Context. *J. Adolesc. Res.* **36**, 467–500 (2021).
28. Akom, A. A. A. Black emancipatory action research: integrating a theory of structural racialisation into ethnographic and participatory action research methods. *Ethnogr. Educ.* **6**, 113–131 (2011).
29. Fine, M. & Torre, M. E. Critical Participatory Action Research: A Feminist Project for Validity and Solidarity. *Psychol. Women Q.* **43**, 433–444 (2019).
30. Trajber, R. *et al.* Promoting climate change transformation *with* young people in Brazil: participatory action research through a looping approach. *Action Res.* **17**, 87–107 (2019).
31. Marzi, S. Co-producing impact-in-process with participatory audio-visual research. *Area* **n/a**,.
32. Fals-Borda, O. The Application of Participatory Action-Research in Latin America. *Int. Sociol.* **2**, 329–347 (1987).
33. Liboiron, M. *Pollution Is Colonialism*. (Duke University Press, 2021).
34. Babington, P. Ageing Well in Bournville: A Participative Action Research Project. *Rural Theol.* **15**, 84–96 (2017).
35. Elder, B. C. & Odoyo, K. O. Multiple methodologies: using community-based participatory research and decolonizing methodologies in Kenya. *Int. J. Qual. Stud. Educ.* **31**, 293–311 (2018).
36. Frisby, W., Reid, C. J., Millar, S. & Hoeber, L. Putting "Participatory" into Participatory Forms of Action Research. *J. Sport Manag.* **19**, 367–386 (2005).
37. O'Leary, Z. *The Essential Guide to Doing Research*. (SAGE, 2004).
38. Koshy, E., Koshy, V. & Waterman, H. *Action Research in Healthcare*. (SAGE, 2011). doi:10.4135/9781446288696.
39. King, P., Hodgetts, D., Rua, M. & Te Whetu, T. Older men gardening on the marae: Everyday practices for being Māori. *Altern. Int. J. Indig. Scholarsh.* **11**, 14–28 (2015).
40. Fine, M. *et al. Changing Minds: The Impact of College in a Maximum-Security Prison. Effects on Women in Prison, the Prison Environment, Reincarceration Rates and Post-Release Outcomes*. (For full text: https://www.prisonpolicy.org/scans/changing_minds.pdf, 2001).
41. Buckles, D., Khedkar, R. & Ghevde, B. Fighting eviction: Local learning and the experience of inequality among India's adivāsi. *Action Res.* **13**, 262–280 (2015).
42. Vecchio, D. D., Toomey, N. & Tuck, E. Placing Photovoice: Participatory Action Research with Undocumented Migrant Youth in the Hudson Valley. 19 (2017).
43. Tuck, E. & Yang, K. W. Decolonization is not a metaphor. *Decolonization:,Indigeneity,,Education,&,Society* **1**, 1–40 (2012).
44. Lucko, J. Positionality and Power in PAR: Exploring the Competing Motivations of PAR Stakeholders with Latinx Middle School Students in Northern California. in *Education | Faculty Conference Presentations. 4.* (2018).
45. Herr, K. & Anderson, G. *The Action Research Dissertation: A Guide for Students and Faculty*. (SAGE Publications, Inc., 2005). doi:10.4135/9781452226644.
46. Alejandro, A. Reflexive discourse analysis: A methodology for the practice of reflexivity. *Eur. J. Int. Relat.* **27**, 150–174 (2021).
47. Cowan, H., Kühlbrandt, C. & Riazuddin, H. Reordering the machinery of participation with young people. *Sociol. Health Illn.* **n/a**,.

48. Buettgen, A. *et al.* We did it together: a participatory action research study on poverty and disability. *Disabil. Soc.* **27**, 603–616 (2012).
49. Thurber, A., Collins, L., Greer, M., McKnight, D. & Thompson, D. Resident experts: The potential of critical Participatory Action Research to inform public housing research and practice. *Action Res.* **18**, 414–432 (2020).
50. Sandwick, T. *et al.* Promise and Provocation: Humble Reflections on Critical Participatory Action Research for Social Policy. *Urban Educ.* **53**, 473–502 (2018).
51. *Who Counts?* 1–224 (PRACTICAL ACTION PUBLISHING, 2013). doi:10.3362/9781780447711.
52. Percy-Smith, B. & Burns, D. Exploring the role of children and young people as agents of change in sustainable community development. *Local Environ.* **18**, 323–339 (2013).
53. Marzi, S. Participatory video from a distance: co-producing knowledge during the COVID-19 pandemic using smartphones. *Qual. Res.* 146879412110381 (2021) doi:10.1177/14687941211038171.
54. Schoonen, A., Wood, L. & Kruger, C. Learning To Facilitate Community-Based Research: Guidelines From a Novice Researcher[1]. *Educ. Res. Soc. Change* **10**, 16–32 (2021).
55. Cornish, F., Gillespie, A. & Zittoun, T. Collaborative analysis of qualitative data. in *The SAGE Handbook of Qualitative Data Analysis* (ed. Flick, U.) (SAGE, 2013).
56. Edgington, N. *Designing a theory of change*. https://www.socialvelocity.net/step-by-step-guides/Design_a_Theory_of_Change.pdf (2015).
57. Burgess, R. A. Working in the wake: transformative global health in an imperfect world. *BMJ Glob. Health* **7**, e010520 (2022).
58. Cahill, C. Repositioning Ethical Commitments: Participatory Action Research as a Relational Praxis of Social Change. *ACME Int. J. Crit. Geogr.* **6**, 360–373 (2007).
59. Wilson, E., Kenny, A. & Dickson-Swift, V. Ethical Challenges in Community-Based Participatory Research: A Scoping Review. *Qual. Health Res.* **28**, 189–199 (2018).
60. Hodgetts, D. *et al.* Relational ethics meets principled practice in community research engagements to understand and address homelessness. *J. Community Psychol.* **50**, 1980–1992 (2022).
61. Hopner, V. & Liu, J. C. Relational ethics and epistemology: The case for complementary first principles in psychology. *Theory Psychol.* **31**, 179–198 (2021).
62. Anyon, Y., Bender, K., Kennedy, H. & Dechants, J. A Systematic Review of Youth Participatory Action Research (YPAR) in the United States: Methodologies, Youth Outcomes, and Future Directions. *Health Educ. Behav.* **45**, 865–878 (2018).
63. de-Graft Aikins, A. *et al.* Building cardiovascular disease competence in an urban poor Ghanaian community: A social psychology of participation approach. *J. Community Appl. Soc. Psychol.* **30**, 419–440 (2020).
64. Feldman, S. & Shaw, L. The Epistemological and Ethical Challenges of Archiving and Sharing Qualitative Data. *Am. Behav. Sci.* **63**, 699–721 (2019).
65. Cornish, F. Communicative generalisation: Dialogical means of advancing knowledge through a case study of an 'unprecedented' disaster. *Cult. Psychol.* **26**, 78–95 (2020).
66. Anderson, G. Participatory action research (PAR) as democratic disruption: new public management and educational research in schools and universities. *Int. J. Qual. Stud. Educ.* **30**, 432–449 (2017).
67. Auerbach, J. *et al.* Displacement of the Scholar? Participatory Action Research Under COVID-19. *Front. Sustain. Food Syst.* **6**, (2022).

68. Levac, L., Ronis, S., Cowper-Smith, Y. & Vaccarino, O. A scoping review: The utility of participatory research approaches in psychology. *J. Community Psychol.* **47**, 1865–1892 (2019).
69. Breton, N. N. Reflecting on our good intentions: A critical discourse analysis of women's health and empowerment discourses in sexual and gender-based violence policies relevant to southern Africa. *Glob. Public Health* **0**, 1–16 (2022).
70. de-Graft Aikins, A. Healer shopping in Africa: new evidence from rural-urban qualitative study of Ghanaian diabetes experiences. *BMJ* **331**, 737 (2005).
71. Sense, A. J. Driving the Bus from the Rear Passenger Seat: Control Dilemmas of Participative Action Research. *Int. J. Soc. Res. Methodol.* **9**, 1–13 (2006).
72. Dawson, M. C. & Sinwell, L. Ethical and Political Challenges of Participatory Action Research in the Academy: Reflections on Social Movements and Knowledge Production in South Africa. *Soc. Mov. Stud.* **11**, 177–191 (2012).
73. Dadich, A., Moore, L. & Eapen, V. What does it mean to conduct participatory research with Indigenous peoples? A lexical review. *BMC Public Health* **19**, 1388 (2019).
74. Bhambra, G. K., Gebrial, D. & Nisancioglu, K. Introduction: Decolonising the university? in *Decolonising the University* (eds. Bhambra, G. K., Gebrial, D. & Nişancıoğlu, K.) (Pluto Press, 2018).
75. Seckinelgin, H. Teaching social policy as if students matter: Decolonizing the curriculum and perpetuating epistemic injustice. *Crit. Soc. Policy* 02610183221103745 (2022) doi:10.1177/02610183221103745.
76. Fine, M. Just methods in revolting times. *Qual. Res. Psychol.* **13**, 347–365 (2016).
77. Fine, M. *Just Research in Contentious Times: Widening the Methodological Imagination*. (Teachers College Press, Columbia University., 2018).
78. Hirsch, L. A. Is it possible to decolonise global health institutions? *Lancet Lond. Engl.* **397**, 189–190 (2021).
79. Chigumadzi, P. Sankofa and the Afterlives of Makerere. *Los Angeles Review of Books* (2021).
80. Gumbonzvanda, N., Gumbonzvanda, F. & Burgess, R. Decolonising the 'safe space' as an African innovation: the Nhanga as quiet activism to improve women's health and wellbeing. *Crit. Public Health* **31**, 169–181 (2021).
81. Tembo, D. *et al.* Effective engagement and involvement with community stakeholders in the co-production of global health research. *BMJ* **372**, n178 (2021).
82. Perz, S. G. *et al.* Participatory Action Research for Conservation and Development: Experiences from the Amazon. *Sustainability* **14**, 233 (2022).
83. Abimbola, S. *et al.* Addressing power asymmetries in global health: Imperatives in the wake of the COVID-19 pandemic. *PLOS Med.* **18**, e1003604 (2021).

Highlighted references

Buckles, D., Khedkar, R. & Ghevde, B. Fighting eviction: Local learning and the experience of inequality among India's adivāsi. *Action Res.* **13**, 262–280 (2015). **A strong example of a sustained university-community partnership in India which used PAR to build expertise and power in a tribal community to improve their security of tenure.**

Chilisa, B. *Indigenous Research Methodologies*. (SAGE, 2019). **A thorough and accessible grounding in the epistemology, methodology and methods of postcolonial, indigenous research, suitable to a wide audience, and rooted in African knowledge systems.**

Kindon, S., Pain, R. & Kesby, M. *Participatory Action Research Approaches and Methods: Connecting People, Participation and Place*. (Routledge, 2007). **A classic, reflective and practical, all-rounder PAR textbook, with a social science / geography orientation and a Global North origin.**

Fine, M. *Just Research in Contentious Times: Widening the Methodological Imagination*. (Teachers College Press, Columbia University., 2018). **An inspiring PAR book, addressing complex challenges and transformational potentials of PAR, based on the author's wide-ranging, deep, and long-standing experience with PAR in the USA.**

Smith, L. T. *Decolonizing Methodologies: Research and Indigenous Peoples*. (Bloomsbury Publishing, 2021). **A foundational book in decolonisation and Indigenous methods, including theory, critique and methodological guidance, rooted in Indigenous thought in Aotearoa/New Zealand.**

Table

Table 1: Prompts for designing a PAR project (the PAR building blocks)

Building Block	Potential Questions	Goals
1. Building relationships	What are the boundaries and composition of the community as defined for this project? What relationship already exists between university and community? What resources, infrastructure, support and challenges are presented by the university context? How do community members understand my relationship to them and to the university? What are the implications of the positionalities and power relations in the community? Do the university-based researchers have the necessary training and skills to facilitate PAR?	Selection of a community setting Co-researchers agree to explore a feasible project
2. Establishing working practices	What resources are available for the project? (Staff capacity and funding) How are decision-making roles, implementation roles, and responsibilities to be distributed? Which language(s) will be used with which audiences? What means of communication will be used, and how? How will meetings be structured, chaired, and prepared for? Who are the key contact persons for each stakeholder? What are team members' needs for capacity development and training? What are our principles for 'ownership' of findings, anticipated uses, and sharing findings? How will we process emergent differences, tensions or power relations within the team?	Agreed working and communication practices
3. Establishing a common understanding of the issue	What are university-based researchers' interests in, and understanding of the issue? What are community-based researchers' interests in, and understanding of the issue? Can we agree on a common statement of the project's aims and/or research questions?	Agreed statement of the issue and the project's aim or research question
4. Observing, gathering and generating materials	What data generation or data collection methods do we plan to use? What ethical issues may be raised by our methods; what ethics training do we need? What training in technical or professional skills do team members need? What written or visual materials do we need to prepare to support data gathering? How will the team incorporate reflection and iteration of our process? How do we record and store our data?	Agreed investigation methods Training in data generation methods Materials collectively generated and recorded

5. Collaborative data analysis	How do we facilitate and record participants' collective critical interpretation and analysis? How do we divide up tasks of data interpretation among different team members, and then bring them together? How do we plan to produce eventual project findings and messages? Can we state our key findings on one page, and our messages for different audiences?	Agreed key findings and messages for different audiences
6. Planning and taking action	What is our "theory of change"? What change(s) do we wish to bring about? What actions are open to us to bring about this change? What stakeholders do we plan to engage and influence with our action? Which stakeholders benefit from the status quo and may resist our action? What skills can we draw upon and do we need to bring in others, to take the desired actions? How should we evaluate the results of our actions?	Identification of priorities for action A theory of change Assessment of options with strengths & weaknesses A community action plan

Figure legends

Figure 1: Participatory action research cycles (adapted from O'Leary's[37,38] cycles of research). Participatory Action Research develops through a series of cycles, with relationship-building as a constant practice. [permission placeholder. Adapted with permission from ref X, Publisher].

Boxes

[bH1] Box 1: What does PAR do?

The Tsui Anaa Project[63] in Accra, Ghana began as a series of interviews about diabetes experiences in one of Accra's oldest indigenous communities, Ga Mashie. Over a twelve-year period, a team of interdisciplinary researchers expanded the project to a multi-method engagement with a wide range of community members. University and community co-researchers worked to diagnose the burden of chronic conditions, develop psychosocial interventions for cardiovascular and associated conditions and to critically reflect on long-term goals. A health support group of people living with diabetes and cardiovascular conditions, called Jamestown Health Club (JTHC), was formed, met monthly, and contributed as patient advocates to community, city and national non-communicable disease policy. The project has supported graduate collaborators with mixed methods training, community engagement and postgraduate theses advancing the core project purposes.

Buckles, Khedkar and Ghevde[41] were approached by members of the Katkari tribal community in Maharashtra, India, who were concerned about landlords erecting fences around their villages. Using their institutional networks, the academics investigated the villagers' legal rights to secure tenure, and facilitated a series of participatory investigations, through which Katkari villagers developed their own understanding of the inequalities they faced, and analysed potential action strategies. Subsequently, through legal challenges, engagement with local politics and emboldened local communities, over 100 Katkari communities were more secure and better organised 5 years later.

The **Morris Justice Project**[77] in New York, USA sought to address stop and frisk policing in a neighbourhood local to the City University of New York, where a predominantly Black population was subject to disproportionate and aggressive policing. Local residents surveyed their neighbours to gather evidence on experiences of stop and frisk, compiling their statistics and experiences and sharing them with the local community on the sidewalk, projecting their findings on to public buildings, and joining a coalition 'Communities United for Police Reform', which successfully campaigned for changes to the city's policing laws.

[bH1] Box 2: Soft skills of a PAR researcher

- Respect for others' knowledge and the expertise of experience
- Humility and genuine kindness
- Ability to be comfortable with discomfort
- Sharing power; ceding control
- Trusting the process
- Patience
- Acceptance of uncertainty and tensions
- Openness to learning from collaborators
- Self-awareness and the ability to listen and be confronted
- Willingness to take responsibility and to be held accountable
- Confidence to identify and challenge power relations

[bH1] Box 3: CASE STUDY of the BRIDGE project: Relationship-building and collective art-making as social change

The BRIDGE Project was a three-week long mosaic-making and dialogue program for youth aged fourteen to eighteen, in Southern California. For several summers the project brought together students from different campuses to discuss inclusion, bullying and community. The goal was to help build enduring relationships among young people who otherwise would not have met or interacted, thereby mitigating the racial tensions that existed in their local high schools.

Youth were taught how to make broken tile mosaic artworks, facilitated through community building exercises. After the first days, as relationships grew, so did the riskiness of the discussion topics. Youth explored ideas and beliefs that contribute to one's individual sense of identity, followed by discussion of wider social identities around race, class, sex, gender, class, sexual orientation, and finally their identities in relationship to others'.

The art making process was structured in a manner that mirrored the building of their relationships. Youth learned mosaic-making skills while creating individual pieces. They were discouraged from collaborating with anyone else until after the individual pieces were completed and they had achieved

some proficiency. When discussions transitioned to focus on the relationship their identities had to each other, the facilitators assisted them in creating collaborative mosaics with small groups.

Staff facilitation modelled the relationship-building goal of the project. The collaborative art-making was built upon the rule that no one could make any changes without asking for and receiving permission from the person/s that had placed the piece/s down. To encourage participants to engage with each other it was vital that they each felt comfortable to voice their opinions while simultaneously learning how to be accountable to their collaborators and respectful of others' relationships to the art making.

The process culminated in the collective creation of a tile mosaic wall mural, which is permanently installed in the host site.

Box 4: Case study: Participatory power and its vulnerability

Júba Wajiín is a pueblo in a rural mountainous region in the lands now called Guerrero, Mexico, long inhabited by the Me'phaa people, who have fiercely resisted precolonial, colonial and postcolonial displacement and dispossession. Using collective participatory action methods, this small pueblo launched and won a long legal battle that now challenges extractive mining practices.

Between 2001 and 2012, the Mexican government awarded massive mining concessions to mining companies. The people of Júba Wajiín, discovered in mid-2013 that, unbeknownst to them, concessions for mining exploration of their lands had been awarded to the British-based mining company Horschild Mexico. They engaged human rights activists who used participatory action research methods to create awareness and to launch a legal battle. Tlachinollan, a regional human rights organisation, held legal counselling workshops and meetings with local authorities and community elders.

The courts initially rejected the case by denying that residents could be identified as Indigenous because they practised Catholicism and spoke Spanish. A media organisation, La Sandia Digital, supported the community to collectively document their syncretic religious and spiritual practices, their ability to speak Mhe'paa language and their longstanding agrarian use of the territory. They produced a documentary film **Juba Wajiin: resistencia en la montaña**, providing visual legal evidence.

After winning in the District court, they took the case to the Supreme Court, asking it to review the legality and validity of the mining concessions. Horschild, along with other mining companies, stopped contesting the case which led to the concessions being null and void.

The broader question of Indigenous peoples' territorial rights continued in the courts until mid-2022 when the Supreme Court ruled that Indigenous peoples had the constitutional right to be consulted prior to any mining activities in their territory. This was a win, but a partial one. "Consultations" are often manipulated by state and private sectors, particularly among groups experiencing dire impoverishment. Júba Wajiín's strategies proved successful but the struggle against displacement and dispossession is continual.

Acknowledgements
The authors thank their PAR collaborators and teachers, who have shown us how to take care of each other, our communities and environments. We thank each other for generating such a productive critical thinking space and extending care during challenging times.

Author contributions
All authors researched and drafted material for the article. All authors contributed substantially to discussion of the content. F.C. drafted the article. All authors reviewed and/or edited the manuscript before submission.

Competing interests
The authors declare no competing interests.

Peer review information
Nature Reviews Methods Primers thanks [Referee#1 name], [Referee#2 name], [Referee#3 name] and [Referee#4 name] for their contribution to the peer review of this work.

Commented [NB1]: I will fill this out later

Related links
Social velocity: https://www.socialvelocity.net/step-by-step-guides/Design_a_Theory_of_Change.pdf
Morris Justice project: https://morrisjustice.org/
La Sandia Digital: https://lasandiadigital.org.mx/
Juba Wajiin: resistencia en la montaña: https://bombozila.com/juba-wajiin/

Supplementary information
Supplementary information is available for this paper at https://doi.org/10.1038/s415XX-XXX-XXXX-X