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Giving Voice to the Researched: Exploring Evolving Relationships in Participatory Action Research

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Creating a new approach to researching with landholders

Natural resources are important to Australia economically and culturally, but land and water are being degraded, especially in our intensive agricultural zones (Australian State of the Environment Committee, 2001). In response to this degradation Australian governments have encouraged voluntary change in the management behaviours of landholders, and have invested heavily in a variety of participatory information and support delivery models such as Landcare (Curtis and Van Nouhuys 1999). In general these participatory models have emerged from, and remained consistent with, the traditional agricultural extension paradigm, in which governments provide expert research and advice, and landholders receive and act (or not) on that information. The cases we discuss in this chapter are attempts to move beyond the traditional extension paradigm by encouraging and empowering natural resource managers to be part of the whole information generation and sharing process. This empowerment was enabled through Participatory Action Research.

Participatory Action Research The term 'Action Research' has been used for some time to describe research that involves professional social researchers and insider community members as co-subjects and co- researchers (Greenwood & Levin, 1998) and intends to generate learning for doing (Bawden, 1991). 'Participatory Action Research' (PAR) builds on the goals and practice of action research, placing greater emphasis on participatory approaches for data creation, analysis and dissemination, and on emancipatory research goals. PAR assumes that the perspective of the participants, and the ways in which they make sense of the world, are central to the research and implementation processes (Kemmis & McTaggart, 2005). Local and/or experiential knowledge is therefore privileged in PAR (Greenwood & Levin, 2000).

PAR promises to produce research results which are of immediate relevance and applicability to the studied community, and which can be used to initiate or support social change (Lincoln, 2001; Bawden, 1991). Other anticipated benefits include enhancement of inquiry/research skills within the studied community (Kemmis & McTaggart, 2005), and development of mutually beneficial relationships between research institutions and the broader community (Lincoln, 2001) .

The cases

As academics we have been part of a number of natural resource management projects which have used PAR, and we discuss four of these in this chapter. These projects range in scale, complexity, financial support and genesis, but in each case the landholder

participants share the intention to learn from their own practice using a mix of their own skills and university expertise, and to use their new learning to make a positive difference in their community.

Case 1: Landcare Action Research
This local scale project was initiated in early 2005 by a community employed co-ordinator of a Landcare network in Victoria, with the aim of helping local Landcare continue to support its members. With assistance from Charles Sturt University and the North East Catchment Management Authority a small research project was developed and implemented by 15 local people. The approach involved the participants interviewing people from their own area, documenting the key lessons from the stories which emerged, then collating and analysing these (Allan 2006). Although small in scope and scale, and funded by in-kind contributions alone, the outcome of the research has provided direction for a funded community learning project.

Case 2: Social data for catchments
This regional scale project commenced in 2002. CSU researchers worked with the Wimmera Catchment Management Authority staff and Board to gather social data to underpin the implementation of regional natural resource management plans. The project had a substantial budget, including both cash and in-kind resources provided by the Catchment Management Authority, local governments and state agencies. Regional stakeholders were partners in all aspects of the research, which involved quantitative and qualitative data creation and analysis (Curtis and Byron 2002; Curtis, Byron and Mackay 2005).

Case 3: Triple Bottom Line for Irrigation
This large, multi-region project has completed the development of an irrigation reporting framework that includes economic, environmental and social values, a framework often referred to as Triple Bottom Line (TBL) reporting (Mitchell *et al.*, 2006). The case study is driven by the Cooperative Research Centre for Irrigation Futures. This Centre brings financial resources and considerable in-kind support from its numerous constituent research institutions. In the early stages of the project the researchers from Charles Sturt University promoted PAR as the most appropriate method to develop the TBL framework. The overall project involves several individual case study groups, one with the goal of developing a Triple Bottom Line report for the Murrumbidgee Irrigation Company. This TBL case study group has a mix of industry and research participants; the former responding to the researchers' offer of help to develop their TBL reporting process.

Case study 4: The Billabong Heartlands Project
The Billabong catchment, on the Eastern edge of the Murray-Riverina Region of NSW, was one of four focus catchments for *Heartlands*, a large, government funded natural resource management project. The *Billabong Heartlands Project* was managed by a Steering Committee comprising farmers, Landcare employees, agency staff, scientists and academics. Participatory Action Research was identified as a useful way to gather base-line social information to underpin decision making within the Heartlands project as it could also facilitate early and genuine community participation in the project. PAR also had the potential to build and enhance the relationships needed for good project communication. The PAR research team comprised five landholders, two scientists from the Canberra based the national research organisation CSIRO, four Landcare employees, an officer from a farm forestry agency, another involved with dryland salinity and three social scientists from Charles Sturt

University. The research involved a rapid but in-depth qualitative assessment of how local landholders perceived and related to their land, the data creation component of which occurred in a single, very busy fortnight (Allan & Curtis 2002).

Some critical reflections

Outcomes

In each of these cases the promises of PAR were achieved to some extent. For example, in the Landcare example a number of citizens concerned about Landcare in their region got together, developed a common purpose and research process, and used that to initiate discussions within their immediate communities. Participants learned about the aspirations and concerns of the people with whom they shared their passion for sustainable land management. Not only were learnings from this exercise of use to the communities, but research skills and networks were also developed by landholders and researchers, adding to human capital and individual empowerment.

Findings from the Wimmera study were used immediately to underpin a substantial review of the Regional Salinity Plan and changes to the implementation of the Wimmera waterways program; real changes were made to real world problems. The Wimmera experiences suggest that collaborative and/or participatory partnerships have substantial benefits in terms of drawing on local knowledge, providing access to local government mailing lists and state agency data layers, enhancing capacity to understand social research methods and building lasting commitment to use and act on research findings. For the landholders who became co-researchers the findings had greater credibility and ownership. Working collaboratively with catchment partners enabled us as academic researchers to engage authentically and positively with the landholder participants. For example we could more effectively address their concerns about the confidentiality of survey respondent information and the need for longer-term partner access to research data, and we were able to help the catchment managers and their stakeholders gain (as insiders in the research) high levels of confidence in the reliability and value to themselves of data obtained. Since completing the participatory research Allan Curtis has been engaged as a 'social research knowledge broker' providing advice to the Catchment Management Authority Board and staff on request, peer-reviewing research briefs and draft reports submitted to the Authority, and facilitating workshops for the Authority on topics such as community engagement, program evaluation and adaptive management.

The TBL case is in its early stages, but has already demonstrated itself to be a project that draws heavily on the local knowledge of people in the irrigation industry. The Murrumbidgee Irrigation Company in conjunction with researchers have evaluated and redesigned their process of developing a reporting strategy. A non-participatory approach to this project would have involved researchers designing a TBL report and providing this to the irrigation industry for their adoption (Christen *et al.* 2006). The participatory approach resulted in the researchers working with irrigators and irrigation providers to develop their own TBL report. The perspectives and experiences of the Murrumbidgee Irrigation Company staff have proved to be crucial to developing a successful TBL report. The first report from this process is currently due for publication.

The Billabong PAR provided information about how people related to the place in which they lived, and the contact with passionate land managers provided inspiration for all

participants. The PAR also created genuine social relationships, notably between the PAR team members, but also between many local community members and the Heartlands Project Team. As a result the Heartlands project was moulded to better suit the needs of the community, enabling it to make a real difference in sustainable landcare actions and outcomes. Again the power of participatory action research strategies to positively and fundamentally change practices is evident.

These stories from the four cases confirm the literature. PAR can indeed: create research of immediate use to the communities researched, value local knowledge and skills, enhance inquiry skills within the communities studied and create mutually beneficial relationships that support inquiry and changes in practice.

Issues raised

Despite,or perhaps because, of these strengths, the implementation of these research projects raised a number of practical and philosophical issues concerning the use of PAR.

Roles and identities

The practice of participatory research raises questions about roles and identities. The most obvious of these is the delineation between the researcher and the researched, a delineation which is challenged by the theory of PAR. In our case study communities we encountered an expectation that only objective and dispassionate scientists are able to do any form of research. For example, in the Landcare PAR there was initial unease and even resistance to the idea that the community members could actually undertake the research themselves, although most participants were comfortable with defining the research goals. Some explanation and training, coupled with the realisation that there was no money to pay anyone else to do the work, resulted in most of the participants accepting this new role with, if not fervour, at least determination.

Closely aligned to the researcher/researched question is the issue of expert and non-expert roles. Consider this first from the perspective of academic participants, such as the authors of this chapter. As professional researchers we are, or at least feel we are, expected to behave as experts; we have carefully crafted ourselves to ‘know more than most other people’ on particular topics, and we see our role as providing this knowledge to others, and advising them on what to do. Being a researcher in a participatory action project means accepting and adopting a different role, that of a traveller embarking on a learning journey with the other researchers/participants on an equal footing. Letting go of the identity of ‘expert – answer provider’ and stepping into situations where our ideas will be contested is challenging, particularly since we have worked hard to earn our professional qualifications.

An example of the difficulty of stepping away from expert roles occurred within the TBL case study. This project is being guided by the Sustainability Challenge team. During the initial research planning process this team included a soil physicist, agronomist, analytical chemist, sociologists, PhD students and the Environmental Officer from the Murrumbidgee Irrigation Company. The team agreed that a participatory approach would be the most useful, but they insisted on having control of the early stages. Their participatory approach began with an intensive learning process exploring TBL reports and indicator development. The knowledge was shared and debated between the group of researchers (a process they called priming), before the communities and organisations were invited to be involved. The rationale for this process was to provide tools and knowledge that could be taken to case study groups, following which the participatory approach could start. A number of factors

seemed to be driving this process: a) that the role of university and research organisation personnel was to provide expertise to the case study groups b) there was a perceived need to have some consistency across the case study groups, and this consistency was to be in the form of 'expert' input and c) that the case study groups could not be expected to do this synthesis themselves. However, it could be argued that the 'priming process' reinforced the researcher/researched distinction and reduced the participatory aspect of the research. The issue of identity and roles is also one of who is in control and who asked the original question. In an ideal PAR the research is controlled by the full group of participants, but with the TBL case there was/is a tension because the researchers need to maintain some control in order to ensure that *their* question is answered.

Stepping away from non-expert roles can also be challenging. In the early stages of the Billabong PAR there was some resistance to a change in role for local people, as the following response to the initial PAR proposal indicates '*Why spend all this money training local people to do a slightly better job, why not just get some professionals in to do it?*'

In the Wimmera project early discussions resulted in a clear roles for the Steering Committee and Reference Group; their work was to involve a genuine partnership between all practitioners, so that all participants would be learning from each other, and all knowledge and assumptions could be contested. The challenge for the academics was to work with project partners to facilitate a process that ensured this happened. As social researchers we had to demonstrate that we could explain our theories and methods, listen to others, respond positively to criticism, negotiate compromise positions between stakeholders, meet agreed timelines, persevere and overcome obstacles, and deliver credible and useful research findings.

The important question of leadership also arises amid discussions about experts and non-experts, and researchers and researched. Who should be the leaders in the project, and who should be the led? The answer will be influenced by the genesis and purpose of the project, but good PAR practice aims for genuine collaboration, rather than depending on a leader/led relationship. This is a very novel approach to research for many people. One participant researcher in the Murrumbidgee Irrigation case study astutely asked: "*are we leading this process or are you leading and we're following*?" This issue is a common criticism of participatory research, that it is "politically motivated outsiders, not the … exploited themselves, who take initiative in identifying problems to be investigated" (Kemmis & McTaggart, 2000, p. 568). Interestingly, and perhaps because the case study involved an organisation with clear leadership roles and structures, the Murrumbidgee Irrigation Company did lead the project and ultimately modified the research question to suit their agenda – as might be expected in a PAR approach.

In the Wimmera study the academic researchers provided the research leadership, but roles and responsibilities of all parties were negotiated at each stage of the project. This seemed to be an effective strategy, providing a structured way of regularly opening up discussions about how people thought the project was going. The Billabong PAR was initially led and facilitated by Catherine, but after a couple of days of sharing ideas and information, and developing trust within the group, a wonderful moment occurred when the whiteboard marker was literally taken from Catherine's hand and three community members led the remainder of the planning session. From that moment 'leadership' was flexible, falling to the most appropriate person as situations and needs changed.

The final issue around identity and roles is that of the representativeness of individual participants. This presented little problem in the Landcare case, as no one was claiming to speak for everybody, merely for the group that gathered. The Billabong PAR was intended as a starting point for further and broader community discussion and investigation. However, in the TBL case the question of representativeness is challenging. It requires an articulation of the purpose of a TBL report, and the intended audience of such a report. If the purpose is to help facilitate sustainable use of water then it is hard not to see the intended audience and range of stakeholders as the whole Australian community, or at least all Australians living in the south-east corner of the continent who will be affected by the social, economic and environmental outcomes of water use in the region. In the Wimmera case the Catchment Management Authority wanted to generalise from the sample to the rest of the catchment and it was this research potential (generalisation) that attracted them to the use of a mail survey to a representative sample of private landholders. Topics for inclusion in the survey were identified through stakeholder workshops employing consensus decision making. As might be expected, tensions developed as different stakeholder groups pushed for the inclusion of topics that would gather information that they thought was important. The academic researchers were often placed in the challenging role of mediating these discussions.

Communication

Effective communication is the core of all participatory processes. For PAR it is important to move beyond rhetoric and establish processes that facilitate genuine multi-directional communication. Partners in the Wimmera project agreed to establish a project steering committee and a project reference group . The steering committee was a small executive comprising representatives from the contracting parties. This steering committee was responsible for day-to-day project management, including supporting the reference group. The reference group was the forum where researchers and partners/stakeholders addressed and settled questions such as: What information is needed? How is the information to be collected and analysed? Who has access to the data and on what conditions? How will the data be used to improve catchment management outcomes? The steering committee needed to be clear about selection criteria for the reference group, expectations of the time commitment of reference group participants, the process for reaching decisions and the level of authority that rested with the reference group, and the resources available to support them. Membership of the project reference group reflected the range of catchment stakeholders and comprised representatives with a responsibility or commitment to implementing research findings. The reference group was chaired by one of the partner/stakeholder representatives, with facilitation and administrative support provided through the steering committee. Reference group decisions were based on reaching a shared or consensus view and non-agency participants in the group were paid sitting/attendance fees, and had their travel costs reimbursed. The nine reference group participants included four landholders who were Wimmera Catchment Management Authority Board representatives (one of these chaired the group), three Catchment Management Authority staff responsible for catchment strategy development and program implementation, and two state agency staff, including a social scientist with responsibilities for providing support to regional catchment planning processes. Reference Group participants were informed that they would be required to attend at least four full day workshops over a ten-month period. In these workshops they would work with the researchers to determine the content of the survey, provide feedback on draft research reports, and assist with the communication of research findings. They were also advised

that they would need to be available to contribute up to five days outside formal meetings to review draft survey instruments and reports. Reference Group members readily committed to this level of engagement with the research process. Subsequent meetings were well attended and it was obvious from their contributions that participants had prepared for each meeting.

Transparency of process is crucial for successful PAR projects. A commitment to ongoing transparency is not always easy to negotiate, as new knowledge may displease the organisation providing the funds, and professional researchers are required to show their worth through publication of 'their' research results. In the Landcare case we were not burdened by funders' requirements as no funds were provided, but the issue of ownership of the knowledge generated, and the claims the professional researcher could make on that knowledge, were discussed at the first meeting. It was decided that any new knowledge created about the researched communities 'belonged' to the communities, not the Catchment Management Authority, nor the University facilitator. However Catherine sought and gained permission from the research group to document the process used to create the new knowledge, and to discuss that process in works such as this chapter.

The TBL case is much more complex with different learning goals for different people in the research. The first learning goal was for Murrumbidgee Irrigation Company to learn about how to make their organisation and the delivery of irrigation water more sustainable. The second learning goal was for the Sustainability Challenge group to learn how the TBL reporting process can be facilitated in the irrigation industry. The research data are still being collected at both groups, but early on the Company opted to select their own sustainability goals rather than adopt those drafted by the Cooperative Research Centre for Irrigation Futures group. The key communication fora that facilitated this process were two workshops with Company staff, a broader survey of staff and ongoing meetings of the steering committee. Regular input from the CEO of the Company and the Corporate Affairs manager was essential to ensure that the direction of the TBL case study was consistent with the broad goals of the organisation, and to facilitate communication of TBL issues within that organisation.

Communication within a PAR group needs to be appropriate, as well as transparent. From the academic researcher's perspective it is important to discuss limitations of any research methods to be adopted, and to present research data in ways that facilitate discussion rather than closing it off with a presentation of 'the facts'. In the Wimmera project we chose to present the quantitative survey data in tabular format rather than as maps so that stakeholders could explore the data. For the Billabong PAR the first stage of the qualitative data analysis was undertaken by the whole group during a workshop, and then a subgroup rounded out the themes that emerged using content analysis. The final written report for the broader community consisted of direct quotations organised into themes, so that the community was indeed given a 'voice'.

Credibility of the research process

Any research process needs to be credible if the new knowledge it generates is to be embraced and incorporated into people's lives. PAR, and the research methods employed by it, must be seen as useful and valid by the communities involved in the research. Similarly, any research partners who embrace participatory approaches need to be

reassured that the research methods will stand scrutiny through peer review, and that their investment will lead to useful findings.

In the Landcare PAR we considered qualitative methods best suited to the questions being explored and the resources (or lack of resources) available. Members of the team who were only familiar with quantitative surveying for social research were persuaded, after much discussion, to use qualitative methods. This reflected a similar story in the Billabong PAR, where the only form of social research familiar to most of the participants was quantitative surveying through questionnaires. Again the PAR team was convinced of the value of qualitative research for gaining deep understanding of particular situations. In the Wimmera project the researchers addressed these issues early through the consideration of alternative research data collection approaches and the agreed criteria for success, particularly in terms of an acceptable survey response rate (60%). Our research partners were also reassured by our track record in achieving high response rates and testimony from previous research partners regarding the usefulness of our work. In each of these cases the academic researchers moved back into their roles as research experts. Whether this is a flaw in the process or simply a pragmatic necessity is a question that bears some attention. We argue that because we presented options, and examples, and helped the groups arrive at a decision through open discussion we were being faithful to the ideals of participatory research. We recognise, however, that this may not always compensate for the clear imbalance of research process expertise apparent at the beginning of each project.

It is also important that peers of the academics involved consider the PAR process itself to be credible. In the TBL project credibility was a subject of ongoing discussion in the group of researchers. There were some researchers who were concerned that the credibility of the PAR process was being undermined by the researchers' priming process, while other researchers felt this process added to the credibility of the project; clearly different criteria for 'credible' were being employed, reflecting the challenge that exists in a multi-disciplinary research team. As mentioned, the goal for Murrumbidgee Irrigation Company is to establish an ongoing 'research' process of which the TBL report will be a key data set. The indicators for biophysical and financial behaviours were easily identified and accepted as credible by the Company and the researchers. The selection of social indicators was more troublesome, not so much for credibility reasons, but because this was the stage where the Company needed to commit to including social goals in their research. The development of the first Murrumbidgee Irrigation Company TBL report is still underway; as such it is uncertain as to which social indicators will be adopted

"No need for learning"

Ideas of research, and even learning, do not necessarily come easily to everyone, especially the 'drivers' and 'doers' in any community. This is exemplified by the Landcare case; some participants stated that they were not there to learn, but rather to prove what they already knew so that they could influence policy makers and budget managers. While this may be a worthwhile pursuit, it is not what PAR is about, nor what the community initiator of that project anticipated. Some community research team members left the group after that first meeting. Some of those who attended the second meeting, which involved presentation of outcomes from their various research interviews, revealed that they had found interviewing their neighbours to be *'surprising'* and '*enlightening*', although others felt that they did not hear anything '*new'*. In the Wimmera project, some stakeholders thought they could anticipate what the survey findings would be. For example, they assumed that they knew the level of community awareness about the extent of current salinity affected areas and the

anticipated level of property turnover over the next ten years. These perceptions were largely based on personal experience, mostly grounded in a life-time of living in a locality. It was interesting to be involved in the discussion of findings when some participants said that the survey data surprised them.

Resources
Resources are important in any research. PAR can require a lot of each participant's time because trust must be built and skills developed. When organisations such as the Murrumbidgee Irrigation Company become involved in participatory approaches, time is measured in dollars. The Company has committed two staff to the process of TBL reporting, and has also agreed to the involvement of other staff and shareholders but not to broad stakeholder involvement in the first iteration of the TBL report.

Participatory processes take longer and this can be an issue for regional organisations, both in terms of costs associated with staff time, and in terms of obtaining information in time to inform program implementation or bids for funding. The Wimmera Catchment Management Authority saw their survey data as likely to provide their Board with a competitive advantage over other regional groups bidding for Australian government funds. Experience with similar projects indicated that nine to ten months is needed to effectively engage Catchment Management Authority partners and their stakeholders in a process that draws on local knowledge, builds commitment to the research and enhances capacity to interpret and implement key findings. With the funding application deadline approaching, considerable pressure was put on the academic researchers to truncate the research process to about six months. After lengthy negotiations it was agreed that the survey development process would be shortened so that survey data could be available in time to support Catchment Management Authority funding applications, but that there would be additional time for the discussion of research findings with stakeholder groups, including professional staff in the state agencies, local government and volunteers in Landcare.

The Landcare PAR was supported by goodwill alone, so time was a major constraint. This project tried to achieve a lot in a short time by streamlining all stages of the project. All the preliminary thinking and development of common purpose, the discussion of methods, and even training occurred in one (exhausting) day. Interviews were incorporated into existing group events. Data analysis involved individuals categorising their own notes, and then sticking coloured sticky notes under headings arranged around the room at the second, shorter meeting. A final meeting, with fewer participants, wrapped it all up. The results were useful, but more could have been achieved with a little more time to build trust and common purpose. The Billabong PAR was a discrete but concentrated research event that required a commitment of at least six days from each participant. This placed constraints on who was available to participate in the research team, however all those who were able to participate considered their time 'well spent'.

Tight timelines do not always squeeze participatory research; although the TBL project had a fixed timeline and the organisation had firm timelines to work to, the project was able to come together without any sense of urgency. The difficulty was finding common times when all members of the steering group and participatory research process could meet. Consequently, clarifying project intent and process took six months. In-kind resources were more abundant than cash but money was available to fund lunches and equipment for workshops.

Ethical issues

Many ethical issues need to be discussed before research projects (particularly PAR projects) commence, such as who has access to information, who owns and can report the intellectual property derived from the research, and under whose logo(s) are outputs to be published. Given current privacy laws it is very difficult to access accurate private landholder mailing lists and almost impossible to access these lists in a spatially-referenced format. The Wimmera Catchment Management Authority staff and Board were aware of these issues and played critical roles in negotiating project access to local government ratepayer mailing lists. In many instances access depended on the strength and trust of personal ties between the Board members and Council staff. Other privacy and intellectual property issues also arose. The Catchment Management Authority wanted access to survey data so that staff could undertake further analysis. The researchers were committed to maintaining respondent confidentiality and were also concerned about the capacity of staff or consultants employed by the CMA who may/may not have social research expertise or strong quantitative data analysis skills. In the end, it was agreed that the Catchment Management Authority would have access to a modified database that would not identify respondents by name or location and that any further data analysis would be peer-reviewed by the University.

Approval must be gained from an Ethics in Human Research Committee before staff from a University can undertake any research with or about humans. In PAR the research questions and methods are developed as part of the research process, so there is a potential problem that you cannot start the research until you have approval, and you cannot put in a detailed proposal until after the research has commenced. Transparency of process, descriptions of contingencies and thoroughness in explaining the intent and nature of the research have kept this potential problem manageable in these cases.

The use of PAR with corporations also raises issues of commercial confidence, as sharing ideas runs counter to competitive practice. This has the potential to block open communication between participants, or limit who might be seen as appropriate participants. Within the context of the Murrumbidgee Irrigation Company organisation, the principles of PAR – open communication, shared learning and blurring of the roles of researcher/researched – has ultimately led to the development of a report writing process that facilitated a greater input from staff than previous report writing processes. It remains to be seen whether the final report, and ongoing TBL reporting continues in the vein of PAR with broad staff input, ownership and analysis of the data.

Conclusions

Our experience suggests that PAR needs to be undertaken in a purposeful fashion. By this we mean that goals and expectations need to be articulated and discussed to allow processes to be developed in a way that can best achieve the desired results. PAR seeks to empower, emancipate and inform, but every community's requirements for power, emancipation and information will be different. Each community will be best served by addressing the purpose of the research rather than by following particular methods, so flexibility is a key in the negotiation process. Understanding and addressing some of the issues that we have discussed in this chapter should help to make those negotiations open and, ultimately, fruitful, for all participants of the PAR adventure.

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