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Participatory Rural Appraisal (PRA): Analysis of Experience*

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Summary. — The more significant principles of Participatory Rural Appraisal (PRA) concern the behavior and attitudes of outsider facilitators, including not rushing, "handing over the stick," and being self-critically aware. The power and popularity of PRA are partly explained by the unexpected analytical abilities of local people when catalyzed by relaxed rapport, and expressed through sequences of participatory and especially visual methods. Evidence to date shows high validity and reliability of information shared by local people through PRA compared with data from more traditional methods. Explanations include reversals and shifts of emphasis: from etic to emic, closed to open, individual to group, verbal to visual, and measuring to comparing; and from extracting information to empowering local analysts.

1. INTRODUCTION

Participation is now widely advocated and documented as philosophy and mode in development (e.g., Cernea, 1985), but the gap remains wide between fashionable rhetoric and field reality. One practical set of approaches which has coalesced, evolved and spread in the early 1990s bears the label Participatory Rural Appraisal (PRA). This has been described as a growing family of approaches and methods to enable local (rural or urban) people to express, enhance, share and analyze their knowledge of life and conditions, to plan and to act.

PRA has many sources. The most direct is rapid rural appraisal (RRA) from which it has evolved. RRA itself began as a response in the late 1970s and early 1980s to the biased perceptions derived from rural development tourism (the brief rural visit by the urban-based professional) and the many defects and high costs of large-scale questionnaire surveys (Chambers, 1980; Carruthers and Chambers, 1981; Longhurst, 1981). PRA has much in common with RRA but differs basically in the ownership of information, and the nature of the process: in RRA information is more elicited and extracted by outsiders as part of a process of data gathering; in PRA it is more generated, analyzed, owned and shared by local people as part of a process of their empowerment.

PRA also flows from and shares much with other approaches and traditions. These commonalities and debts include the idea that local people can and should conduct their own appraisal and analysis, found in activist participatory research (e.g., Freire, 1968); many forms of diagramming, derived from agroecosystem analysis (Gypmantasiri *et al.*, 1980; Conway, 1985, 1986, 1987); the importance of rapport and of the emic-etic distinction, from applied social anthropology; and an understanding of the complexity, diversity and riskiness of farming systems and poor people's livelihoods, from farming systems research (e.g., Gilbert, Norman and Winch, 1980; Shaner, Philipp and Schmehl, 1982). PRA draws on these traditions and shares much with them.

The more developed and tested methods of PRA include participatory mapping and modeling, transect walks, matrix scoring, well-being grouping and ranking, seasonal calendars, institutional diagramming, trend and change analysis, and analytical diagramming, all undertaken by local people. Among many applications, PRA has been used in natural resources management (soil and water conservation, forestry, fisheries, wildlife, village planning, etc.), agriculture, health, nutrition, food security and programs for the poor (*RRA Notes*, 1988–; IDS, 1993).

By early 1994 activities labeled as PRA have, in various forms, evolved in or spread to at least 40 countries in the South, including Bangladesh, Bolivia, Botswana, Brazil, Burkina Faso, Cambodia, Cameroon, Chile, Colombia, Costa Rica, Ecuador, Egypt, Ethiopia, the Gambia, Ghana, Guatemala, Honduras, India, Indonesia, Jordan, Kenya, Mali,

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Mauritania, Mexico, Namibia, Nepal, Nigeria, Pakistan, the Philippines, Senegal, Sierra Leone, South Africa, Sri Lanka, Sudan, Tanzania, Uganda, Vietnam, Zambia, and Zimbabwe. PRA has also been spreading from the South to Australia, Canada, Germany, Norway, Switzerland and the United Kingdom. Much of the innovation has been in the non-government organization (NGO) sector, especially in India and Kenya, but increasingly government agencies have been adopting and adapting PRA approaches and methods. Increasingly, too, graduate students are conducting their research in a PRA mode, and university faculty have shown interest in over 20 countries.[1]

Empirically, much PRA has proved powerful and popular. This article sets out to present and analyze the principles, insights, validity, reliability, and modes of PRA, and to understand the nature of its power and popularity.[2]

2. THE PRINCIPLES OF PRA

Effective RRA and PRA have been found to require practitioners and facilitators to follow basic principles. Some are shared by RRA and PRA, and some have been additionally evolved and emphasized in PRA.

The principles of RRA and PRA have been induced rather than deduced: they have been elicited by trying out practices, finding what works and what does not, and then asking why. Although different practitioners would list different principles underlying RRA and PRA (see e.g., Grandstaff, Grandstaff and Lovelace, 1987, pp. 9–13; Grandstaff and Grandstaff, 1987a; McCracken, Pretty and Conway, 1988, pp. 12–13; Gueye and Freudenberger, 1990, pp. 10–19) and these have been evolving over time, most might include and accept the following:

(a) *Principles shared by RRA and PRA*

— *A reversal of learning*, to learn from local people, directly, on the site, and face-to-face, gaining insight from their local physical, technical and social knowledge.

— *Learning rapidly and progressively*, with conscious exploration, flexible use of methods, opportunism, improvisation, iteration and crosschecking, not following a blueprint program but being adaptable in a learning process.

— *Offsetting biases*, especially those of rural development tourism, by being relaxed and not rushing, listening not lecturing, probing instead of passing on to the next topic, being unimposing instead of important, and seeking out the poorer people and women, and learning their concerns and priorities.

— *Optimising tradeoffs*, relating the costs of learning to the usefulness of information, with tradeoffs between quantity, relevance, accuracy and timeliness. This includes the principles of optimal ignorance — knowing what it is not worth knowing, and then not trying to find it out, and of appropriate imprecision — not measuring what need not be measured, or more accurately than needed, following the dictum attributed to Keynes that it is better to be approximately right than precisely wrong.

— *Triangulating* (Grandstaff, Grandstaff and Lovelace, 1987, pp. 9–10; Gueye and Freudenberger, 1991, pp. 14–16) meaning cross-checking and progressive learning and approximation through plural investigation. This variously involves assessing and comparing findings from several, often three:

— methods
— types of item or sets of conditions
— points in a range or distribution
— individuals or groups of analysts
— places
— times
— disciplines
— investigators or inquirers

and combinations of these.

— *Seeking diversity*, meaning looking for and learning from exceptions, oddities, dissenters, and outliers in any distribution. This has been expressed in terms of seeking variability rather than averages (Beebe, 1987, pp. 53–54), and has been described in Australia as the principle of maximum diversity, or "maximising the diversity and richness of information" (Dunn and McMillan, 1991, pp. 5, 8). This can involve purposive sampling in a nonstatistical sense. It goes beyond triangulation; for it deliberately looks for, notices and investigates contradictions, anomalies, and differences, and includes negative case analysis.

(b) *Principles additionally stressed in PRA*

Of these shared principles, PRA puts special stress on offsetting biases, and the associated changes in outsiders' behavior. In addition, PRA in practice manifests four further principles:

— *They do it*: facilitating investigation, analysis, presentation and learning by local people themselves, so that they generate and own the outcomes, and also learn. This has been expressed as "handing over the stick" (or pen or chalk). It requires confidence that "they can do it." Often the facilitator initiates a process of participatory analysis and then sits back or walks away, taking care not to interview or interrupt.

— *Self-critical awareness*: meaning that facilitators continuously and critically examine their own

behavior. This includes embracing error — welcoming error as an opportunity to learn; facing failure positively — "failing forwards"; and correcting dominant behavior.

— *Personal responsibility*: PRA practitioners tend to take personal responsibility for what is done rather than relying on the authority of manuals or of a rigid set of rules. This is in the spirit of the words of the one-sentence manual (Peters, 1989, p. 378; KGVK, 1991) "Use your own best judgement at all times".

— *Sharing*: of information and ideas between local people, between them and outsider facilitators, and between different practitioners (encouraging photocopying and non-attribution), and sharing field camps, training and experiences between different organizations, regions and countries.

Interestingly, the principles shared by RRA and PRA are mainly epistemological, to do with obtaining information and gaining knowledge, while those special to PRA are mainly personal, to do with outsiders' behavior and attitudes. This contrast indicates the emphasis in PRA on how outsiders interact with local people.

3. "DISCOVERIES" OF PRA

Practitioners of PRA have a sense that they have broken new ground. But every historian knows that little is new under the sun, and what appear to be methodological "discoveries" are often only rediscoveries (as pointed out in Rhoades, 1992). What is not disputed, however, is that PRA practitioners are often surprised at first by what happens, and experience a sense of personal discovery of the unexpected. To understand this requires a closer look at the contrast between traditional research and RRA on the one hand, and PRA on the other.

Major differences between the more extractive data gathering of traditional research and RRA and the more participatory data sharing, presentation and analysis of PRA, are found in behavior, attitudes and roles. In data gathering the outsiders dominate. They determine the agenda, obtain and take possession of information, remove it, organize and analyze it, and plan and write papers and reports. Outsiders appropriate and come to own the information. They hunt, gather, amass, compile, and process, and produce outputs. In PRA, in contrast, these are largely reversed. Outsiders encourage and allow local people to dominate, to determine much of the agenda, to gather, express and analyze information, and to plan. Outsiders are facilitators, learners and consultants. Their activities are to establish rapport, to convene and catalyze, to enquire, to help in the use of methods, and to encourage local people to choose and improvise methods for themselves. Outsiders watch, listen and learn. Metaphorically, and sometimes actually, they "hand over the stick" of authority.

Local people then do many of the things outsiders formerly did (and believed, often enough, that only they could do). Local people make maps and models; they walk transects and observe; they investigate and interview; they diagram and analyze; they present information; they plan. In consequence, they are more in command of the investigation, they own and retain more of the information, and they are strongly placed to identify their priorities for action, and then to determine and control that action.

The participatory orientation of PRA has given new impetus to the development of methods. Some of the more gifted facilitators of PRA have delighted in the lack of blueprint. Participation then generates diversity; local people play a part in interpreting, applying, and sometimes inventing methods themselves. Local people and outsiders alike are encouraged to improvise in a spirit of play. What is done is different each time, the outcome of a creative interaction. In consequence, the four years 1990–1993 have witnessed inventions and generated insights, at first especially in India. Reviewing the participatory innovation of these years, four salient findings stand out which explain some of what appears different and new about PRA; local people's capabilities; the value of relaxed rapport; diagramming and visual sharing; and the power of sequences of methods.

(a) *Local people's capabilities*

The first discovery has been that villagers have a greater capacity to map, model, observe, quantify, estimate, compare, rank, score and diagram than outsiders have generally supposed them capable of.

Participatory mapping and modeling (Mascarenhas and Kumar, 1991) has been a striking finding. An earlier work on mental maps (Gould and White, 1974) did not fully reveal the richness of detail and discrimination expressed recently by villagers in India and elsewhere through participatory mapping, and which has been known at least since the early 1980s (Kenyon, 1983). A working hypothesis is that in general rural people in the South have more extensive and detailed mental maps than the urban people in the North who earlier were the main source of insight; and that given the right conditions and materials, they can express this visibly on the ground or on paper, either as maps or as three-dimensional models (for example, of watersheds). These have shown the huts, houses and people in a village (social, census and health maps), the surrounding village area (resource maps and models), or specialized information (theme or topic maps). By early 1994, thousands of such maps and models had been created in over 30 countries.

As with mapping, so with quantification, estimat-

ing, comparing, ranking, scoring and diagramming, local people have shown themselves capable of generating and analyzing information far beyond normal professional expectations. For example, when facilitators have provided local people with the occasion and methods to reflect on and rank problems and opportunities as they perceive them, they have analyzed and presented their preferences — for improving their farming systems, for managing and using common property resources, for better livelihoods, for health interventions, for species mixes in tree nurseries, for the qualities of new varieties of crop, for amenities and their location, for development actions in their communities, and so on. To enable these capabilities to be expressed, the practical principle has been to assume that people can do something until proved otherwise. Participatory mapping and modeling, Venn diagramming, matrix ranking and scoring, and other methods have then turned out to be not one-off exceptions but near-universals and largely independent of culture or literacy.

A further discovery has been that local people who are already familiar with a PRA approach and methods are themselves good facilitators (Shah, Bharadwaj and Ambastha, 1991), and often better than outsiders. The Aga Khan Rural Support Programme (AKRSP) (India) has found its trained village volunteers being invited by other villages to come as facilitator/consultants to help them (personal communication, Parmesh Shah). It has even been known for a village volunteer to write to AKRSP staff and state that they are going to carry out a PRA but that "you do not need to come" (personal communication, Apoorva Oza).

In all this, both the participatory methods and familiar local materials have helped in enabling local people to express and analyze their knowledge and preferences.

(b) *Behavior and rapport*

The second discovery is the importance of outsiders' behavior and establishing relaxed rapport early in the process.

Rapport is a key to facilitating participation. Relaxed rapport between outsider and villager, and some measure of trust, are minimum predisposing conditions for PRA. In the past, two extreme types of interaction between outsiders and rural people have missed major opportunities: the rushed and unself-critical rural development tourist has had neither the time and nor the sensitivity to get far beyond formal mutual misunderstanding; and some fastidious social anthropologists have allowed so much time and shown such sensitivity that they have come to believe that only through prolonged residence can good rapport and good insights be gained. The two contrasting "cultures" — of rushed visitor, and of resident participant-observer — have concealed the potential for gaining rapport early and well, and early enough and well enough for the honest and accurate sharing of detailed knowledge and values. To a hardened "old hand" at rural development tourism (the senior official: "I was born and brought up in a village," "I am a farmer myself," "You can't pull the wool over my eyes") this might seem unnecessary: he (most are men) or she knows it all and assumes he has an automatic good rapport with all rural people. To a seasoned social anthropologist (the university professor: "It took a year before they would tell me that . . .") this might seem an affront: it would be unfair if others in a short time could achieve what had taken her (relatively more are women) or him so long. For anyone who has endured and struggled through months of residence and participant-observation to achieve rapport and insight, learning a new language and living a new life, it could seem unlikely and even unwelcome, that other outsiders should find ways to establish rapport and gain good insights more quickly and with pleasure, participation and fun.

Empirically, though, the finding again and again with PRA has been that if the initial behavior and attitudes of outsiders are relaxed and right, and if the process can start, the methods of PRA themselves foster further rapport. Early actions by outsiders can include transparent honesty about who they are and what they are doing; and participation in local activities, especially being taught and performing local tasks. Personal demeanor counts, showing humility, respect, patience, and interest in what people have to say and show; wandering around and not rushing; and paying attention, listening, watching and not interrupting. Then local people quickly lose themselves in activities such as participatory mapping and modeling and matrix scoring. In contrast with questionnaires, they are not simply providing information to be handed over and taken away. The information is theirs. They own it, but share it. They often enjoy the creativity of what they are doing, and what they themselves see and learn through their presentation and analysis. The pleasure, fun and utility of what they have been helped to start doing express themselves in rapport. By reinforcing rapport, PRA methods thus sustain and strengthen the participatory process of which they are a part.

(c) *Diagramming and visual sharing*

The third discovery is the popularity and power of participatory diagramming and visual sharing.

Diagramming and visual sharing are common elements in much PRA. With a questionnaire survey, information is appropriated by the outsider. It is transferred from the words of the person interviewed to the paper of the questionnaire schedule. The learning is

one-off. The information becomes personal and private, unverified, and owned by the interviewer. In contrast, with visual sharing of a map, model, diagram, or units (stones, seeds, small fruits, etc.) used for ranking, scoring, counting or quantification, all who are present can see, point to, discuss, manipulate and alter physical objects or representations. Triangulation takes place with people crosschecking and correcting each other. The learning is progressive. The information is visible, semi-permanent, and public, and is checked, verified, amended, added to, and owned, by the participants.

For example, in participatory mapping and modeling, villagers draw and model their villages and resources, deciding what to include, and debating, adding and modifying detail. Everyone can see what is being "said" because it is being "shown." In shared diagramming, information is diagrammed to represent, for example, seasonal changes in dimensions such as rainfall, agricultural labor, income, indebtedness, food supply and migration. Paper can be used for diagrams, but the ground and other local materials have the advantage of being "theirs," media which villagers, whether literate or nonliterate, can command and alter with confidence. The diagram also presents a visible checklist or agenda which is theirs.

(d) *Sequences*

The fourth discovery is the power and popularity of sequences of participatory methods.

Some of the participatory methods have been known and used in the past (Rhoades, 1992). There are now some new ones, but perhaps more striking is the power which has been revealed of combinations and sequences (Shah, 1991). To take some examples:

— with participatory mapping, villagers draw not one, but several maps, which become successively more detailed and useful, or which present new and complementary information. The map is then used as a reference for other planning, and is retained by villagers for their own monitoring and evaluation;

— social mapping provides a basis for household listings, and for indicating population, social group, health and other household characteristics. This can lead to identification of key informants, and then to discussions with them;

— a participatory resource map leads to planning transect walks in which villagers who made the map act as guides for outsiders. The transects in turn lead to the identification and discussion of problems and opportunities, which then lead to listing and ranking options or "best bets";

— a participatory resource map of an area of degraded forest, and a rootstock census of quadrats in the forest carried out by villagers, leads to a calculation of numbers of trees to be planted; and debate and analysis lead to people's decisions about the proportions of different species to be planted, and the numbers of each required in tree nurseries (Meera Shah, personal communication);

— a village social map provides an up-to-date household listing which is then used for well-being or wealth ranking of households which leads in turn to focus groups with different categories of people who then express their different preferences, leading to discussion, negotiation and reconciliation of priorities (Swift and Umar, 1991; Mukherjee, 1992);

— matrix scoring or ranking elicits villagers' criteria of value of a class of items (trees, vegetables, fodder grasses, varieties of a crop or animal, sources of credit, market outlets, fuel types . . .) which leads into discussion of preferences and actions.

Longer sequences have been devised and used in full PRAs. In Kenya these have been part of a stepwise sequence (PID and NES, 1989). In India, for example with the AKRSP, the sequences have been less codified and more in a style of systematic improvisation, though with specialized sequences, for example for appraisal, planning and action with degraded forests, or with identifying and working with the poorest.

The power of such sequences is fourfold. First, the commitment of participants increases, making further action more likely, more spontaneous, and more sustainable. Second, sequences triangulate, and reveal errors or omissions in earlier presentations (see e.g., Pretty *et al.*, 1992). Third, the different activities interact cumulatively, each activity adding a dimension and details which qualify and enrich others, so that taken together the whole becomes more than the sum of the parts. Fourth, all concerned learn through the process, through local people sharing what they know, through observation and through analysis. In such ways as these, participatory methods fit well with a flexible learning process approach which is even more open-ended and adaptable than much of the earlier RRA; and they have the advantage that they usually enable local people to use their own categories and criteria, to generate their own agenda, and to assess and indicate their own priorities.

4. VALIDITY AND RELIABILITY

Some facilitators of PRA have been exhilarated by a sense of liberation and discovery. The presentation and analysis of detailed knowledge in maps, models, matrices, diagrams and the like by local people has impressed them deeply in a personal way which has challenged preconceptions, and affected beliefs and behavior. See Table 1 for remarks of NGO staff.

The experience behind these and similar statements is a fact. For those who make them, the evidence of personal experience convinces.

Table 1. *NGO staff remarks*

After participatory social mapping	"I have been working for eight years in this village, but I never saw it like this before"
After PRA experience	"I shall never go back to questionnaires"
After PRA training	"I have been trying to get this information in this village for six months, and now we have it in two afternoons"

Validity and reliability can also be assessed in more conventional ways. Validity here refers to the closeness of a finding to the reality, and reliability refers to the constancy of findings. Highly valid findings are also highly reliable, but where there is a systematic bias, reliability can be high but validity low. Validity and reliability are not absolute values. There can be tradeoffs, through optimal ignorance and appropriate imprecision, where lower validity and reliability can be more cost-effective, and can enhance utility through less cost or greater relevance or timeliness.

Most large questionnaire surveys present any assessment of RRA and PRA with low standards of comparison. (Certain routinized and repeated surveys like the National Sample Survey in India, and some national census surveys, may be at least partial exceptions.) Critiques of rural questionnaire surveys have found them often badly designed, badly implemented, and badly analyzed (see, e.g., Moris, 1970; Campbell, Shrestha and Stone, 1979; Daane, 1987; Gill, 1993). Even so, it is rare for a survey to be subjected to full critical scrutiny, for results to be tested for investigator or enumerator bias, treating the questioner as an independent variable, or for methodological problems to be discussed in reports of survey findings.

This is, however, no reason for anything less than critical rigor in assessing the validity and reliability of RRA and PRA approaches and methods. The conventional tests most readily applied concern measurements and numbers. Let us therefore examine the four main areas where RRA and PRA have generated numerical data or insights which can be compared with those from questionnaire surveys or other standard sources. These are farm and household surveys; wealth and well-being ranking; village censuses; and rainfall data.

(a) *Farm and household surveys*

In five cases comparisons have been made between the findings of an RRA approach and a conventional questionnaire survey.

Collinson's (1981) Exploratory Survey of a farming system, involving some 20 professional person-days, was never contradicted in any major way by the subsequent longer, drawn out and more expensive Verification Survey which represented the major commitment of professional time and funds.

Franzel and Crawford (1987) systematically compared a quick and light survey with a longer and heavier conventional survey in Kenya and found no significant differences attributable to the methods.

Rocheleau and her team (Rocheleau *et al.*, 1989) working on agroforestry in Kenya used a chain of informal in-depth interviews, and group interviews, and compared the results with a survey of a formal randomized sample of 63 households. They found that "the formal survey took three times as long and reproduced the same main results as the group interviews and chain of interviews, with less detail and coherence" (Rocheleau *et al.*, 1989, p. 21).

Inglis (1990, 1991) led a team which used a repertoire of RRA techniques to gather local forestry knowledge in Sierra Leone in an area where a lengthy questionnaire with 278 questions had already been applied. The RRA results were presented four days after the last location was surveyed, but the questionnaire report was still not available six months after the completion of fieldwork. Comparisons of the questionnaire survey and RRA data showed sharp discrepancies in two localities where the questionnaire survey's findings were implausible and its validity suspect. As Inglis points out:

> . . . if information is wrong to begin with, no amount of statistical manipulation will enable it to help the project staff make good decisions . . . In contrast, the RRA survey was completed in a much shorter time, the results have been produced in specific locational reports that can be individually used as discussion papers in the field in follow up surveys. As research biases, mistakes and omissions are admitted and not lost in a mass of questionnaire codes, the decision maker can see how the information was generated, how important factors were revealed, and how the best bets were arrived at (Inglis, 1990, p. 107).

Bernadas (1991) reports that in Eastern Visayas in the Philippines, highly structured questionnaire interviews identified declining soil fertility as the most pressing problem of farmers. Bernadas explains that "The staff themselves had formulated the questions on the basis of what they felt to be priorities. The problem areas considered were predetermined based on the outsiders' point of view." Two years of research based on the questionnaire survey findings did not match farmers needs and circumstances, and the developed technologies were not adopted by them. An RRA approach was then used, with informal discussions and dialogues and open-ended interviews with guide topics. This led to the discovery that the most pressing problem facing farmers was the long fallow due to the growth of a weed cogon (*Imperata cylindrica*). Relevant research could then begin.

In these five cases, then, the outcomes of the RRA approach, compared with the more formal questionnaire, were variously more valid, less costly, more timely, and more useful.

A cautionary counterexample is a case of the worst of both worlds. Pottier (1992) has analyzed a one-week survey through interviews of 30 farmers conducted by a researcher in Northern Zambia, and described as an RRA. Pottier argues that in such hurried interviews an insensitivity to the context, to who is being met, to what is being said, and why, can lead to misleading conclusions, in this case that food security had been enhanced by growing maize. The investigation was, it seems, rushed and wrong. The lessons are many; and include that hurried one-off individual interviews are liable to mislead whatever the label attached to them, and that respondents can react by giving responses which, for reasons such as prudence, politeness and favorable presentation of the self, are reliable but invalid, and thereby convincingly generate and sustain erroneous myths.

(b) *Ranking*

Ranking and scoring have long been part of the repertoire of social anthropologists. People in communities rank other individuals or households for characteristics as varied as aggressiveness, drunkenness, industriousness, or more commonly some concept of respect, honor, wealth or well-being (Pelto and Pelto, 1978, pp. 82–87; *RRA Notes*, No. 15, 1992).

The most common method is sorting cards into piles, carried out either by local individuals in private, or by groups. Different informants often use different numbers of piles for the same community, but evidence is consistent in finding close correlations in rank orders between different informants. Silverman 1966, p. 905) found that "there was high agreement in the relative rank of most persons" when three informants in an Italian community card-sorted households according to their criterion of *rispetto* (approximately prestige). Hill (1986, pp. 41, 75) suggests that to villagers, relative household living standards can be a matter of passionate concern. On the basis of fieldwork in West Africa and India, she concluded that rural people (unless themselves too poor and disabled) are able to assess the relative wealth or well-being of members of their community far more accurately than are townspeople. This has been borne out by much subsequent wealth or well-being ranking. Grandin (1988) found that correlations (Spearman's Rho) across informants in 12 instances of wealth ranking (using a total of 41 informants) averaged 0.77 (range 0.59–0.96). The correlations of each informant with the final score averaged 0.91 (range 0.84–0.98).

Silverman, Hill and Grandin are all social anthropologists and so might be expected to have developed good rapport before the exercise. The test is whether without a social anthropological training and relationship, the method can also be reliable and valid. Those who have facilitated such ranking exercises have usually found them easier than expected (see *RRA Notes*, No. 15) and usually report high correlations between the rankings given by different informants or groups.

Some triangulate rankings through discussion. Hill's three informants in Nigeria thrashed out discrepancies between themselves (Hill, 1972, p. 59). In a PRA mode, on similar lines, MYRADA in South India has evolved a method of successive approximation in which separate groups rank households, and then meet to reconcile differences (personal communication, Vidya Ramachandran), a procedure which is used in selecting households for anti-poverty programs.

A comparison of a formal survey with wealth ranking for identifying the rural poor was conducted in 1992 by the RUHSA Department of the Christian Medical College, Vellore, South India. A survey with a pretested structured schedule was administered to 412 households by five very experienced investigators, collecting data on type of house, caste, education, occupation, ownership of assets, number of dresses per person, and yearly income. A "professionals' classification" was then compiled, based on a composite index calculated for each household. A separate community classification through wealth ranking was facilitated, and conducted by groups of knowledgeable local women and men. In making their classifications, those local analysts took into account a wider and more nuanced range of considerations, such as types of ownership of land and of livestock, types and amounts of debt and repaying capacity, types of job, whether permanent or temporary, bad habits, and capacity to give children education. The two classifications coincided for 62% of households. About half of the 38% which were discrepancies were investigated by senior researchers in careful detail, including home visits. They found the community classification correct in 92% of the discrepancies they examined. This confirms that community classification by wealth ranking is accurate. Also it highlights the limitation of the professional classification specially when it deals with economic level (RUHSA, 1993, p. 20, and personal communication Rajaratnam Abel).

Health and physical condition are a complicating factor. Again and again, analysts who rank for some concept of well-being include health as well as economic condition. A study in Bangladesh which sought to separate wealth and health into two exercises, found a remarkable degree of consistency between male and female groups' rankings for wealth but classifications for health which were similar in only about 40% of cases (Adams, Roy and Mahbub, 1993), a discrepancy important to investigate.

Another example is the ranking of the value of 30

browse plants as feed to their cattle by pastoralists in Nigeria (Bayer, 1987, 1988). Rankings for the most important plants were found to correspond closely between different groups of pastoralists.

Ranking exercises have limitations. In a group, one person may dominate and overrule others. With well-being ranking some analysts have been reluctant or unreliable in ranking themselves, their near relatives or their close friends. Shared concepts are needed for consistent rankings. In general though, as the examples cited suggest, there tend to be close correlations between the rankings given by different local analysts. This appears to be where four conditions obtain: where information is common knowledge; where criteria are commonly held and well understood; where what is ranked is a matter of intense interest; and where analysts do not perceive advantages in giving false or misleading judgements. These conditions have, to date, quite commonly prevailed.

(c) *Participatory village censuses*

In participatory social mapping, villagers show the location of households. In India in 1991 this was extended by Sheelu Francis and others into participatory censuses. Census maps have shown social details, representing people and household characteristics with local materials such as different seeds, stones and vegetables, or markers such as *bindis* (the small spots Indian women place on their foreheads). A practice developed by Anusuda and Perumal Naicker of Kethanayakanpatty village near Madurai in Tamil Nadu, is to have a card for each household and mark details with symbols on the card. These have been placed on cards or on the ground on the maps or models to indicate for each household the numbers of men, women, and children, assets owned, wealth/poverty, the handicapped, immunisation status, education, and other information. With an informed group or person, a participatory census of a small village has been conducted in less than an hour, and then other information added by "interviewing the map."

Four examples can illustrate:

— In May 1991, in Ramasamypatti village, near Tiruchuli, in Tamil Nadu, a triangulation of censuses took place. In a PRA training organized by SPEECH, an NGO, four groups of between approximately five and 15 villagers used different methods of analysis and presentation: two did social mapping direct onto paper; one made a ground model of the village with a card for each household; and one did a seed census onto a map drawn on a floor. Each group independently generated a figure for the total population of the village. All four processes generated the same figure — 355. The few discrepancies concerning occupations were quickly resolved in a village meeting.

— In February 1992, in Kabripathar village, Bharuch District, Gujarat, Raiben, a woman from a neighboring village, and who was not literate, facilitated census mapping by women onto cards, leading to a full village census of 87 families, giving numbers of women, men, girls, boys, bullocks, cows, buffaloes, goats, donkeys and other information, completed and checked in about four hours.

— Also in 1992, the National Council for Applied Economic Research undertook research to compare the costs, accuracy and reliability of a sample survey using questionnaires and RRA/PRA methods. In an evaluation of the national improved *chulah* (stove) program in Maharashtra State, an NCAER team compared results from a sample survey covering 120 villages in 15 districts, with RRA/PRA methods in 10 villages in five districts, carefully chosen after stratifying the state in homogeneous regions. In these 10 villages participatory mapping and other methods were used. The demographic data derived from the participatory mapping were much closer to the recent 1991 census than that derived from the normal survey methods. The study (NCAER, 1993, p. 91) reported: "The overall conclusion . . . supports the claim of RRA/PRA adherents that it provides a highly reliable village level data base on quantitative as well as qualitative variables."

— In August 1993, in the village of San Mauricio, Samar Island, the Philippines, about 20 villagers took part in census mapping (including information on education, land size and tenurial status of land as well as people) for their village of over 60 households. The Barangay Captain and Secretary said this was unnecessary as they had data on numbers of males and females and their ages from their own 1992 census and partially completed 1993 census. But as the participatory mapping proceeded, they noticed discrepancies and corrected what they found to be errors in their own data, in the end taking all their census data from the participatory process (personal communication, Ditdit Pelegrina, 1993).

(d) *Rainfall data*

It has been found that farmers will often readily estimate days and amount of rainfall by month. In 1988 two farmers in Wollo in Ethiopia estimated numbers of days of rainfall by month for the previous five years, and also indicated the pattern they remembered from their childhood (Conway, 1988; ERCS, 1988, pp. 50–52). A common method now is for local analysts to arrange a line of 12 stones for the months of the local calendar and then estimate rainfall using either seeds for numbers of days of rain by month or

broken sticks for relative volume, or both. Some farmers in India have preferred to indicate depth of soil moisture by month as being more relevant for agricultural purposes (personal communication, J. Mascarenhas for Karnataka and Sam Joseph for Rajasthan). A refinement, invented by women in Galkada village, Badulla District, Sri Lanka in January 1992, is to space the seeds to indicate the distribution of days of rain within each month.

The question is how valid such data are. Farmers' data on rainfall have several times been found to differ from those of nearby rainfall stations. At Nugu Dam in H. D. Kote, Karnataka, in August 1990, a discrepancy was found but not further analyzed. In rapid catchment analysis in Kenya (Pretty, 1990) when farmers' patterns of rainfall differed in six different catchments and also differed from the "real" data from a nearby rainfall station, this was judged to reflect spatial heterogeneity, without ruling out the possibility that the farmers were wrong (personal communication, J. Pretty). The only detailed analysis of comparisons to date comes from Nepal. It was there in May 1990 near Lumle that farmers for the first time indicated volume and numbers of days of rainfall per month using seeds for days and sticks for volume. In 45 minutes, they presented first a normal year and then a pattern which they said occurred one year in five. Gill's (1991) painstaking analysis of their perceptions compared with 20 years of daily rainfall data at the nearby rainfall station shows that what initially appeared as discrepancies where the farmers were "wrong" turned out on closer examination to show respects in which the farmers' judgements were superior to the averaged met station data. Gill's title "But how does it compare with the *real* data?" captures the irony of the assumption that scientifically measured data are necessarily superior. More balanced conclusions are that there are different realities, that farmers' realities are likely to be linked to agricultural utility and weighted by recent experience, and that the issue is whose reality counts, in what contexts, and for what purposes.

(e) *A rigor of trustworthiness*

Much rigor in the social and natural sciences is linked with measurements, statistical tests, and replicability. These are reductionist, since most realities, other than discrete units (such as people) which can be counted, have to be separated into or examined as parts if they are to be measured. The simplifications which result, even if the measurements are accurate, miss or misrepresent much of the complexity and diversity of system interrelationships. This leads to a condition in which:

> Unfortunately, there appears to be an inverse relationship between rigor and relevance in most social science work. This may be because rigor always requires some reductionism, since certain aspects of phenomena are necessarily excluded by any classification and measurement. Moreover, their changing nature tends to be ignored because taking this into account greatly complicates analysis (Uphoff, 1992, p. 295).

The purpose of rigor is trustworthiness (Pretty, 1993). Reductionist rigor is an attempt to minimize the element of personal judgement in establishing trustworthiness. That it does not work well in the social sciences is only too evident from the widespread mistrust of the findings of questionnaire surveys. If such forms of reductionist rigor do not carry conviction, the challenge is to find ways of enhancing both relevance and trustworthiness at the same time.

The experience with RRA and PRA contributes here. Relevance is enhanced through local specificity: local people define relevance and present, analyze and enhance their local knowledge. Trustworthiness is sought through the principles which have been induced from effective practice (see section 2 above). In pursuit of a rigor of trustworthiness, these can be applied by outsiders in a combination of three ways: through active intervention; through management and observation of process; and through the exercise of critical judgement.

The active intervention of outsiders can be illustrated from Nepal. Two groups of outsiders found discrepancies in the information on seasonality and trends in agriculture which villagers had shared with them:

> The response was for both groups to back to their village the next day and reconcile the information, with their respective groups of informants forming one combined group, and with the statement "We got the information from you yesterday and there seems to be some difference. Can you help us?" And of course they did. Information flowed, arguments and discussions took place among the villagers, among the outsiders and between both villagers and outsiders. . . . Explanations were given, corrections made, and it was a much more satisfied group of researchers that returned to the base camp that night (personal communication, James Mascarenhas).

Discrepancies were thus recognized by the outsiders and taken as opportunities to get closer to a consensus reality.

Second, there is the rigor of observed process. Outsiders initiate, facilitate and then critically observe the process of analysis, especially with visual (mapping, diagramming, etc.) analysis by groups. In contrast with most questionnaire surveys, this group-visual analysis gives the observer time and freedom to watch interactions, to see how much crosschecking and correction take place, to assess the commitment of analysts, and to judge whether information is being distorted or withheld. A group-visual synergy often

develops (Figure 1) with cumulative group enthusiasm, adding and amending detail in order to create a complete and accurate picture.

Third, there is the rigor of personal and peer judgement informed by self-critical scepticism and awareness applied throughout. Two of the cases described above provide a salutary caveat. When the four groups at Ramasamypatti all came up with 355 as the population of the village, I was excited. I collected the reporting maps and diagrams, and labeled, arranged and photographed them. This positive evidence has since been disseminated through copies of the slides. Only later did I think to ask whether there had been any exchanges of information or of figures between the groups. In fact I believe there was none. But had the groups come up with figures which differed, the question is whether my reaction too would have differed, whether I would have collected and photographed the maps and diagrams. The danger is selective recording and dissemination of the positive. Similarly with rainfall, the Nepal case has been meticulously analyzed by Gill and published. But this was not done in the Kenya and Karnataka cases. Had those discrepancies been investigated further, they might, as in the Nepal case, have revealed a validity in the farmers' judgements; or they might not. We do not know. Rigor requires consistency in probing inquiry into the whole range of types of case. To ensure this, sharing with peers, and inviting critical review, is perhaps the strongest safeguard.

These foundations of rigor merit further exploration, analysis and application. Pretty (1993) has proposed complementary foundations for analysis of trustworthiness which include prolonged and/or intense engagement, persistent and parallel observation, triangulation of sources, methods and investigators, peer debriefing, negative case analysis, and checking by participants. Of these, checking and correcting by participants stands out as a strong test, in practice often carried out through presentations by local analysts to a larger local group. Rigor through new tests of trustworthiness presents a frontier for PRA, and can be expected to have applications for much other inquiry and research.

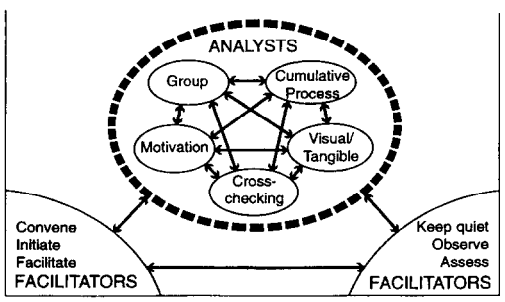

Figure 1. *Group-visual synergy in PRA.*

5. REVERSALS AND REALITY

Most of those who have innovated in developing PRA have been practitioners, concerned with what works, and what will work better, not academic theorists concerned with why it works. They have been searching not for new theories or principles but for new and better ways of learning and doing. For them, the power and utility of RRA and PRA, undertaken with rapport and self-critical rigor, are empirical facts of common experience: they know that they work, and that done well they can lead to better local development. But the why? Questions remain, leaving further issues of explanation. There is now enough experience to suggest some answers.

Elaborating and crosscutting some of the principles of RRA and PRA (see section 2 above), further explanations can be posited under the rubric of "reversals," meaning directions away from normal professional practices and toward their opposites. Four clusters of reversal intertwine, and are mutually reinforcing: reversals of frames; reversals of modes; reversals of relations; and reversals of power.

(a) *Reversals of frames: From etic to emic*

An overarching reversal is from etic to emic, from the knowledge, categories and values of outsider professionals to those of insider local people.

Conventional investigations are preset. Almost all questionnaire surveys are designed by outsiders with outsiders' concerns and categories. They seek to elicit responses to fill fixed boxes. Whatever the intentions that investigators shall probe under the category "other" which lies at the end of the list of precoded responses on the sheet, they rarely do; and where they do it presents problems later in coding and analysis. To be convenient, reality is forced to fit the professionals' familiar frame.

The frame of local people is, however, usually not knowable in advance. The reversal from etic to emic has, then, to be from closed to open. In contrast with questionnaire interviews, semi-structured interviews (Grandstaff and Grandstaff, 1987b) are more open, conversations (Scrimshaw and Hurtado, 1987) more so, and PRA mapping and diagramming perhaps most of all. In a semi-structured interview there can be a checklist for reference, but not a preset sequence of questions; and a value can be set on probing, on pursuing leads, on serendipity. In conversations, there can be greater freedom and equality. In PRA methods such as participatory mapping and modeling, matrix ranking and scoring, Venn or *chapati* diagramming and well-being ranking, insiders can be even more in charge of the agenda and detail, not only free to

express their knowledge and values, but encouraged and enabled to do so. The shift is from preset and closed to participatory and open.

(b) *Reversals of modes*

Modes of interaction and analysis are reversed from their normal directions in three ways: from individual to group; from verbal to visual; and from measuring to comparing.

(i) *From individual to group*

Normal investigations stress individual interviews. Professionals need numbers. Questionnaire surveys with individuals or households generate commensurable numbers convenient for statistical analysis. In RRA, semi-structured interviewing can be with an individual or group, but still with somewhat more emphasis on the individual "interviewee" (see e.g., Grandstaff and Grandstaff, 1987b, pp. 135–137). In PRA, discussions with individuals can and do take place, but there is more attention to groups and participatory analysis by groups.

Groups can have disadvantages, such as dominance by one person or a vocal minority. But their advantages have been undervalued. Typically, they have an overlapping spread of knowledge which covers a wider field than that of any one member. Paradoxically, and contrary to common belief, sensitive subjects are sometimes more freely discussed in groups, when individuals would not wish to discuss them alone with a stranger. Groups can also generate numbers with observable mutual checking through self-surveys, whether verbal or visual. With visual modes, such as mapping and modeling, experience in PRA has been that groups often build up collective and creative enthusiasm, fill in gaps left by others, and add, crosscheck and correct detail. Triangulation is then both instant and observable.

(ii) *From verbal to visual*

With traditional questionnaire surveys and semi-structured interviewing, most of the transfer or exchange of information is verbal. This contrasts with the visual mode of participatory diagramming. This includes social and census mapping, resource mapping and modeling, seasonal analysis, Venn and *chapati* diagramming, trend diagramming, matrix ranking and scoring, and time use analysis, and is often a group activity.

With visual analysis, relationships change. The topic may be determined, or at least suggested, by the outsider, but the role is not to extract through questions but to initiate a process of presentations and analysis. The outsiders are convenors and facilitators, the insiders actors and analysts. The outsiders hand over control, and insiders determine the agenda, categories and details. The media and materials are often those of insiders — the ground, stones, sand, seeds as counters, sticks as measures, and so on. Eye contact, and insider's awareness of the outsider, are low. Information is built up cumulatively, and crosschecking is automatic. Often, several or many people are involved. Knowledge overlaps. If half a dozen women diagram a census map of their village, showing women, men, children, handicapped persons, and so on, not everything may be known by each; but two or more may know each item. Debate can be lively because everyone can see what is being said. It can then be the diagrams rather than the people who are interviewed.

Visual methods can also empower the weak and disadvantaged. Visual literacy (Bradley, 1992) is independent of alphabetical literacy, and appears to be near-universal. Visual diagramming is thus an equalizer, especially when it is done using the accessible and familiar medium of the ground. On paper, too, the nonliterate can diagram. In Kiteto District in Tanzania, in June 1992, a nonliterate Maasai young man, though mocked as incapable by his literate colleagues, took a sheet of paper, and went off and quietly drew a detailed map of a large village area and its settlements. In Pakistan, in March 1992, several nonliterate women drew complex systems diagrams of their farms and households with internal and external flows and linkages (personal communication, Jules Pretty). Describing the experience of the Neighbourhood Initiatives Foundation (NIF) in the UK, Gibson (1991) has pointed out that "the talkers nearly always win." But with a physical model of their neighbourhood to play with, timid people can physically put down their ideas. Often "people who put down an idea wait for others to talk first about it, and then say themselves: 'I agree with you'" (Gibson, 1991). Similarly participatory mapping and matrices can enable marginalized women to express their preferences and priorities in a physical form which does not entail personal confrontation with otherwise dominating men.

Some contrasts between verbal and visual modes are presented in Table 2.

The shift from verbal to visual is one of emphasis in PRA. Diagrams are part of the repertoire. They can be facilitated on their own early in interactions. They can also be part of semistructured interviews or conversations. Diagrams then present an agenda for discussion. "Interviewing the map," "interviewing the matrix," and "interviewing the diagram" have proved often the most fruitful, but also the most neglected, stages of a discussion and diagramming process. With the visual, "a whole new set of questions and discussion arises which does not in the verbal" (personal communication, James Mascarenhas). The verbal, as shown for example with oral histories (Slim and Thompson, 1993), will always remain important. But combinations of visual and verbal are stronger than either on its own.

Table 2. *Contrasts between visual and verbal modes*

	Verbal (interview, conversation)	Visual (diagram)
Outsider's roles	Investigator	Initiator and catalyst
Outsider's mode	Probing	Facilitating
Outsider's interventions	Continuous and maintained	Initial and then reduced
Insider's roles	Respondent	Presenter and analyst
Insider's mode	Reactive	Creative
Insider's awareness of outsider	High	Low
Eye contact	High	Low
The medium and material are those of	Outsider	Insider
The poorer, weaker, and women can be	Marginalised	Empowered
Detail influenced by	Etic categories	Emic perceptions
Information flow	Sequential	Cumulative
Accessibility of information to others	Low and transient	High and semi-permanent
Initiative for checking lies with	Outsider	Insider
Utility for spatial, temporal and causal analysis, planning and monitoring	Low	Higher
Ownership of information	Appropriated by outsider	Owned and shared by insider

(iii) *From measuring to comparing*

Normal professional training is to make absolute measurements. So if trends or changes are to be identified, or conditions compared between households or between places, this is through measurements made either at different times, or of different things, or in different places. Our preoccupation with numbers drives us to ask "how much?" For sensitive subjects such as income, such questions can sow suspicion, wreck rapport, and generate misleading data.

For practical purposes, comparisons without measurements are often enough. They have advantages. Involving reflection and judgement, they are easier and quicker to express than measurements. They can be elicited for trends and changes without formal baseline data. They are less sensitive, as has been shown by wealth and well-being ranking, and by seasonal analysis: asking how income compares between months is easier to estimate and less threatening to reveal than are absolute figures. In addition, comparisons, as with matrix ranking and scoring, can in a short time elicit complex and detailed information and judgements of value inaccessible by other methods unless with great labor. Moreover, trends, comparisons and weightings lend themselves to visual sharing, with all its potential gains in participation, triangulation, progressive approximation, and learning. Comparing can be quicker and cheaper, and often more credible, than measuring.

(c) *Reversals of relations: From reserve to rapport, from frustration to fun*

These reversals of frame and mode follow from, generate and reinforce a reversal of relations, from suspicion and reserve to confidence and rapport.

With outsider–insider interactions, there is a scale of formality–informality, from the structured interview with questionnaire, through the semi-structured interview with checklist of subtopics to the conversation. With interviews, and sometimes also conversations, outsiders ask questions and probe. The outsider usually maintains control and largely determines the agenda and the categories. Eye contact is common. The interviewee responds, conscious of an interaction with a person who is seeking information.

An initial reserve of local people toward outsiders is a commonplace. Their responses are often prudent to avoid loss and hopeful to gain benefits. RRA and more so PRA stress the process of gaining rapport. Some social anthropologists have expressed scepticism about the relative speed with which rapport can be established. For their deeper and more fully emic understanding, there is a case for more lengthy immersion. But the experience with both RRA and PRA is that when outsiders behave well and methods are participatory, good rapport usually comes quickly. This is through outsiders being unhurried, showing respect, explaining who they are, answering questions, being honest, and being interested; and asking to be taught, being taught, and learning.

In the classical view, much good fieldwork is painful. It entails long hours of collecting and checking data. Moser and Kalton (1971, p. 296) observe of questionnaire surveys "An interviewer's interest is bound to flag after a time . . ." Pelto and Pelto (1978, pp. 194–195) cite the case of an anthropologist, Kobben, who had to make "a great sacrifice of time, during a year of field work, to collect . . . quantified data on a mere 176 persons" and even then he felt rather unsure of the validity of some of his data. The same authors go on to consider how extensive survey

data from questionnaires needs to be checked and qualified by other methods, and conclude:

> Clearly, the quantified data of survey research or other standardized interviewing require close support from participant observation and general informal interviewing. But the converse is equally true. The lesson in all this, as Kobben made clear, is that field research entails a great amount of tedious, time-consuming work — both qualitative and numerical (Pelto and Pelto, 1978, pp. 194–195).

Some earlier participatory research also suffered from being long and drawn out. The pilot project in appropriate technology for grain storage in Bwakira Chini village in Tanzania involved an outside team residing in the village for eight weeks. This was considerd a "short period of dialogue," but even so the application of the dialogical methodology was "time consuming and tiresome" (Mduma, 1982, pp. 203, 213).

This contrasts with RRA. Professional conversations are mutually stimulating and interesting. Of cattlekeepers in Nigeria who ranked browse plants. Bayer (1988, p. 8) wrote that "Pastoralists were very willing to share their knowledge about browse plants with us and appeared to enjoy the interviews as much as we did." Reflecting on the comparison between a topic RRA and a questionnaire survey on forestry and fuelwood in Sierra Leone, Inglis (1991, p. 40) wrote that the RRA approach enabled respondents "to enjoy a professional chat about their livelihood or kitchen habits, instead of being subjected to an intrusive 278 question questionnaire by bored enumerators."

With PRA the contrast has usually been even stronger. Data are not collected by outsiders, but expressed and analyzed by insiders. A common experience is group-visual synergy as illustrated in Figure 1. Outsiders convene, provide an occasion, and initiate. Local people as analysts become engaged in tangible, visual diagramming, a cumulative process of presenting, sharing, adding and correcting information which generates interest and takes off with its own momentum. The role of outsiders then is to keep quiet, observe, assess, and support, and often not to interrupt (see Figure 1).

For outsiders, in Devavaram's words (*RRA Notes*, No. 13, p. 10), "One doesn't get bored repeating field work. It is always interesting." What is shared is often unexpected and at times fascinating. For insiders, the creative act of presentation and analysis is usually a pleasure, and also a process of thinking through, learning and expressing what they know and want. In matrix scoring for trees or crop varieties, using the ground and seeds, it is a common experience for the outsider to become redundant as the process takes off, as villagers debate and score on their own. After village participants had made and analyzed models ("*maquettes*") of their environment in Burkina Faso, all the participants expressed a strong desire to continue the work and to go into it more deeply (Hahn, 1991, p. 3). Quite often dissatisfied with their first attempt at a map, villagers scrub it out and start again with concentrated enthusiasm. Again and again, villagers in India have lost themselves in mapping and modeling, and outsiders have had to learn not to interview, not to interrupt, not to disturb their creativity. There is pride in what has been made, and pleasure in presenting it to others. In the words of a postcard from Pakistan, received as this is written "When PRA works well it seems to be a good experience for everyone" (personal communication, J. Pointing). The experience of PRA is often fun.

(d) *Reversals of power: From extracting to empowering*

Reversals of frames, modes and relations contribute to reversals of power. In the forms which have spread, PRA has stressed abdication of power and passing much of the initiative and control to local people, using the metaphor (and sometimes reality) of "handing over the stick" (or chalk, or pen). From the perspective of power, PRA contrasts with the more extractive data-collecting nature of traditional methods of inquiry.

In questionnaire interviewing, power and initiative lie with the interviewer. The questionnaire is "administered to" the person interviewed. The interviewee is a "respondent," a person who replies or reacts. The Latin *respondere* means to return like with like. The questions and categories are those of the interviewer, who also records the "response." The professional concern is less with people — the respondents, and more with what they provide — the responses. In their textbook *Survey Methods in Social Investigation* (1971) Moser and Kalton have only two index entries for "respondent," but 32 for "response." The responses matter more, for they are the raw material to be mined, packaged, transported and processed, the commensurable output to be collected, categorized, coded, counted and correlated.

In classical social anthropological investigation, too, the ultimate aim has been to obtain data which are then analyzed and written up away from the field. Participant observation demands and creates sharply different relationships to questionnaire surveys but the basic objective remains similar. Development anthropologists aim to be useful through their work in a more direct manner; and many anthropologists intervene in their field for ethical reasons. But the basic objective often remains that of a researcher, leading to the crowning consummation of data and insights processed into a Ph.D. thesis, articles or a book.

In contrast, the thrust of PRA is to reverse dominance, to empower more than extract. The objective

sought by many practitioners is less to gather data, and more to start a process. Approaches and methods tend to be what Scoones and Thompson (1993, p. 22) call "performative" (as also with folk theater, stories, proverbs, songs and the like) through visualizations which break down the distinction between data and analysis. The initiative is passed to "them." The stick is handed over. The prime actors are the people. The outsider is less extractor, and more convenor, facilitator and catalyst. Even so, two practical and ethical issues stand out.

The first issue is who is empowered. The easy, normal tendency is for those who participate and who are empowered to be those who are already more powerful or less weak — the better-off, elites, officials, local leaders, men, adults and the healthy, rather than the worse-off, the underclasses, the vulnerable, lay people, women, children and the sick. When this occurs, the weak and poor may end up even worse off. With women, the problem is compounded by their many tasks which make it hard for them to find blocks of undisturbed time enough for some of the participatory modes of analysis. Deliberate steps have been repeatedly needed to offset such biases, identifying different groups in a community, and encouraging and enabling women to conduct their own analysis and express their own priorities (Welbourn, 1991).

The second practical and ethical issue is what the shared information is used for. The unselfconscious sharing of information by local people through participatory methods is open to abuse by outsiders. PRA methods could be used as a trick to lure unsuspecting people into parting with their knowledge. Examples are not yet known but can be expected.

A legitimate and sensitive PRA process can seek to enable outsiders to learn, but through the sharing of information in a manner which enhances people's analysis and knowledge and leaves them owning it. The actual and the ideal, here as elsewhere, will rarely correspond exactly. But an ideal sought by some PRA practitioners is a process in which people, and especially the weaker and poorer, are enabled to collate, present and analyze information, making explicit and adding to what they already know. This happens, for example, through participatory mapping of a watershed where the map is used by villagers to plot current conditions and plan actions, and is retained by them for monitoring action taken and changes; or through mapping and surveying degraded forest, deciding how to protect it and what to plant, and then managing the resource; or through matrix scoring for varieties of a crop which enables them to specify the characteristics of a "wish" variety they would like. The aim is to enable people to present, share, analyze and augment their knowledge as the start of a process. The ultimate output is enhanced knowledge and competence, an ability to make demands, and to sustain action. Instead of imposing and extracting, PRA is then designed to empower.

The popularity and power of PRA are linked. PRA is not always well done. But when it is well done, local people, and especially the poorer, enjoy the creative learning that comes from presenting their knowledge and their reality. They say that they see things differently. It is not just that they share knowledge with outsiders. They themselves learn more of what they know, and together present and build up more than any one knew alone. The process is then empowering, enabling them to analyze their world and can lead into their planning and action. It is not the reality of the outsider which is transferred and imposed, but theirs which is expressed, shared, and strengthened. In this final reversal, it is more the reality of local people than that of outsider professionals that counts.

NOTES

1. An illustrative, but certainly incomplete listing is Australia, Bangladesh, Canada, China, Colombia, Denmark, Eire, Germany, India, Kenya, Nepal, Nigeria, Norway, Pakistan, the Philippines, South Africa, Sweden, Tanzania, Thailand, Uganda, the United Kingdom, the United States, Vietnam, Zambia and Zimbabwe.

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