The achievements in human well-being in the past 40 years have been remarkable (see, for example, Adamson 1993), and much is to be learnt from successes. But also remarkable have been dogmatic errors in development theory and practice. This article focuses on learning from and correcting negative experience. Throughout the development decades, most professionals have been confident in imposing on others their own beliefs, and the policies and programmes which follow from them. This includes academics, bankers, bureaucrats, consultants, planners, scientists and technical assistance personnel, and the staff of national ministries, field bureaucracies, donor agencies, and institutes for research and training, both in the North and in the South. Later, many of these beliefs and actions have proved astonishingly erroneous. Exceptions include basic physics and engineering, and some biology and health, fields in which at the practical applied level there is some stable certainty. In most other fields, however, much of what was believed and done earlier has been superseded: the old beliefs are now seen as misleading and the old practices as misguided. To put it bluntly, 'we' - development professionals - have been wrong, but at the same time, confident we were right.

Examples are many. In development strategy, there was belief in the unilinear stages of economic growth, the primacy of industrialization, the protection of infant industries, and the key role of direct government action and of parastatals, contrasting with today's stress on agriculture, the free market, and dismantling and privatizing many state activities; in human nutrition, the belief that hungry people needed proteins rather than calories, leading to feeding milk powder instead of cereals; in agriculture, the belief that post-harvest losses of cereals at the village level were of the order of 30 to 40 per cent, not as we now believe, almost always less than 10 per cent, leading to investment in institutes and programmes to tackle a problem that had been greatly exaggerated; in health, the belief that malaria could be eliminated through massive programmes of spraying, which we now know not only pollutes but provokes the evolution of resistant strains; in energy, the belief that fuelwood would run out in many countries and environments, whereas farmers have often planted and protected trees to provide it; in canal irrigation, the belief that hardware and control were the key, not, as today, software and participation; and generally, the belief that modern scientific knowledge and technology were superior, and should be transferred to a rural populace that was ignorant and conservative, contrasting with today's growing consensus that on many subjects poor farmers know much, and that far from being conservative, they continually improvise and innovate in order to survive.

The new beliefs which are today's orthodoxies are held by some with no less conviction than those of the past. But any historical view would suggest that, if we have been wrong on much before, we are likely still to be wrong. It would suggest that error is endemic and cannot completely be avoided. If so, what matters is to minimize it. To try to see how to be less wrong, this article examines some major sources of error, and then analyses one - power relations - in more detail.

2 ERROR ANALYSED

1 ERROR

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2 ERROR ANALYSED

Neglect of the reasons for error has itself been an error. Many monographs and books have sought to correct wrong beliefs, policies and practices, and have replaced old approximations or myths with new. But that is not the same as trying to understand, let alone tackling, causes. The tendency has been to bustle on busily to the next fashions and vocabulary without pausing to unearth the roots of earlier mistakes, and so without learning how to do better.

Four kinds of explanation of past errors can be suggested, with standard solutions to the first three.

First, the development reality changes. Development professionals are then always working in new territory. When much is new and unknown, blind alleys and false trails abound and errors are to be

1 I thank Jenny Chambers for many discussions and ideas on the theme of uppers and lowers, and both her and Susanna Davies for comments on drafts. Responsibility for opinions and errors is mine alone.
expected. The realities of earlier decades were also different, requiring and supporting different beliefs and actions; in consequence, much of what was done in the past was less wrong in its contemporary context than it now seems or would be if done now. Change in economic, social and political conditions is also so fast that we cannot help being behind the times; error is a function of failing to keep up-to-date with a rapidly moving target. The solution seen is faster and better feedback, monitoring and evaluation, information systems and the like.

The second explanation is professional norms. Prevailing professional values, beliefs, methods and technology have evolved in and for the cores of the rich, urban, temperate, industrial North. They interlink with capital-intensive technology, controlled conditions, and reductionist science. They include ideology - neo-Fabian in the 1960s and 1970s, neo-liberal in the 1980s and 1990s. Error is explained, in these terms, because core values, beliefs, methods, technologies and ideologies, formed in the conditions of the North, quite often misfit when transferred to the peripheries of the poor, rural, tropical, and agricultural South. The solution seen is changes in professional training and rewards, and for values, beliefs, methods, technology and ideology to be formed, driven and determined much more by the people and contexts of the peripheries than of the cores.

The third explanation is modes of learning. Notably in rural development, outsider professionals have learnt in two modes: rural development tourism, the brief and biased rural visit, in which the visitor is presented with a rehearsed reality to give a good impression; and through large-scale questionnaire surveys which crudely collect and box the reality of respondents according to the categories and interests of the researcher. Both rural development tourism, and large-scale questionnaire surveys frequently mislead. The solution seen is the adoption of participatory modes of analysis and sharing knowledge, as with Participatory Rural Appraisal (PRA).

These three explanations have force. But they also leave much unexplained. We are still faced with phenomenal errors which fly in the face of facts which seem to have been known or knowable.

The thesis of this article is that a fourth explanation intertwines with and overrides the first three, and presents the central challenge. This is power relations - the effects of power, dominance and ego. Those who are powerful and dominant - the uppers, gain and interpret information in ways which fit their preconceptions and fulfil their needs; while those who are subordinate - the lowers, behave and communicate in ways which generate, select, distort and present information to fit what they believe uppers want, approve and will reward. The self-esteem and interests of both uppers and lowers are served: uppers are flattered by deference and supported by positive feedback; and lowers present themselves in a favourable light, avoid penalties and gain benefits. Systems of misinformation are then self-sustaining.

To throw light on this phenomenon, let us examine three widely different cases of what is now generally seen as manifest professional error.

3 FREUD, TOOLCARRIERS AND TREES

3.1 Freud's fantasy
Freud and his followers present a case of extreme and sustained error.

When his female patients told him about being abused sexually by their fathers and others, Freud at first believed them. Later he conceived the idea that the accounts were fantasies reflecting their repressed sexual desires. The young girls had really been in love with their fathers. The terrible treatment they said they had received was a fiction of their perverted imaginations. Three generations of psychoanalysts believed and perpetuated Freud's fallacy, imposing their fantasy on the reality of the patient. 'In the words of Janet Radcliffe Richards (1992): 'If the therapists had actually conspired with the abusers to drive the victims to madness and despair, it is hard to see how they could have done better'.

The evidence is now overwhelming (see e.g. Masson 1992; Sanderson 1990; Karle 1992) that child sex abuse is a widespread and deeply damaging phenomenon.²

² The existence of false memory syndrome, where patients during prolonged analysis invent a history of having been sexually abused in childhood, does not challenge the widespread existence of child sex abuse. Rather it reinforces the point that realities can be mythical constructs resulting from upper-lower interactions.
The costs of error by the powerful were cruel and needless suffering and long delay, until the 1980s, in bringing to light the prevalence of child sex abuse. The lay person may well find it an astonishing mystery that professionals could be so wrong for so long, and yet so sure they were right.

How and why did they fail to listen and learn?

3.2 Multi-purpose wheeled toolcarriers: perfected yet rejected
(The main source for this section is Paul Starkey’s study Animal-Drawn Wheeled Toolcarriers: Perfected yet Rejected (1988)).

Animal-drawn wheeled toolcarriers are multipurpose implements that can be used for ploughing, seeding, weeding and transport. In the three decades to 1987 about 10,000 wheeled toolcarriers of over 45 designs were made, mainly in and for Africa and Asia. The toolcarriers were designed by agricultural engineers, tested and developed in engineering workshops and on research stations, and then passed on to farmers for trials and to manufacturers to produce. The International Crops Research Institute for the Semi-arid Tropics (ICRISAT) developed toolcarriers which received much publicity. Up to 1200 were distributed to farmers through credit and subsidies of up to 80 per cent. Worldwide, more than one hundred senior person years, and several hundred person years of less senior staff, were devoted to the development of these toolbars, and the cost at 1987 prices was estimated to be over $40 million (ibid.: 142).

Wheeled toolcarriers were rejected by farmers. The reasons were high cost, heavy weight, lack of manoeuvrability, inconvenience, complication of adjustment, difficulty in changing between modes, and higher risk and less flexibility than with a range of single purpose implements. Their design was a compromise between the many different requirements. By their criteria, farmers did better with single purpose implements.

Farmer rejection was apparent from the early 1960s but toolcarrier development continued. At a conference at ICRISAT in 1979, an economic analysis (Binswanger, Ghodake and Thierstein 1979) cautiously supported further development, but on a field visit farmers who had been trying out the toolcarrier rejected it. This was on three grounds - lack of the strong bullocks needed to draw it, its cost, and the large area required for it to be economical. Nevertheless, work on the toolcarrier went on. After his careful comparative research, Starkey concluded that ‘No wheeled toolcarrier has yet been proven by sustained farmer adoption in any developing country’. Yet as late as 1987 ‘Research, development and promotional activities (were) continuing in at least twenty countries in Africa, Asia and Latin America’ (ibid.: 131). When Starkey corresponded with those who were developing and testing wheeled toolcarriers, a common reply was that they were facing difficulties, but that they knew toolcarriers had been successful elsewhere. Starkey’s carefully researched reality is that wheeled toolcarriers failed everywhere. They were ‘perfected yet rejected’.

The puzzle remains. How could so many able agricultural engineers, scientists and researchers, and so many donor agencies, go on being so wrong for so long?

3.3 Trees and the woodfuel gap
Central planners can be brutally wrong, as is only too clear from the histories of command economies, and the terrible policy-induced famines and tens of millions of famine deaths in the USSR under Stalin and in China under Mao Ze Dong. However, in the developing world, rather few of planners’ errors have been well studied and documented. An exception is forecasts of a woodfuel crisis in African countries, analysed and documented by Gerald Leach and Robin Mearns in Beyond the Fuelwood Crisis: people, land and trees in Africa (1988).

The woodfuel ‘crisis’ in the South was ‘discovered’ in the mid-1970s after the oil-price rises of 1973/4. Evidence had been accumulating of deforestation and of increasing shortages of fuelwood. The problem was analysed according to ‘woodfuel gap theory’. This estimated current and projected consumption of woodfuels set against current stocks and a projected growth of trees. This type of demand and supply analysis was conducted in all of the 60-odd UNDP/World Bank energy sector assessments for African and other countries in the South which considered woodfuels in the first half of the 1980s (ibid.: 6). Typically, consumption was found greatly to exceed the annual growth of trees. This led to predictions that the last tree in Tanzania would disappear in 1990 and in Sudan in 2005. But, to repeat in 1993 what Leach and Mearns wrote in in 1988 (ibid.: 7), ‘There are still many trees in Tanzania’.
These gap calculations were multifariously flawed:

- woodfuel consumption figures were unreliable (and conclusions were sensitive to small differences in assumptions)

- conditions varied locally, making averages of aggregates misleading

- consumption was assumed to rise in proportion to population (but people have many coping strategies for substitutions and economizing in face of scarcity)

- total tree stocks were usually grossly underestimated by forest departments since they knew little about trees outside forests, for example on farm, fallow and village common lands

- natural regeneration was usually omitted, although 'tree regrowth can soften dramatically the dire predictions of gap forecasts' (ibid.: 8).

- much tree-based fuel in practice is dead branches, twigs and leaves, and does not entail depletion of living stock

- surpluses were not accounted for arising from land-clearing, often the largest source of fuelwood

- seasonal variation in stocks, sources and use of fuels is significant

- farmers plant and protect trees to provide for their needs and also to meet market opportunities

Among these numerous errors and oversights, the last was probably the most massive. To an extraordinary extent, 'under our eyes', visible even from main roads but often unremarked by speeding professionals, trees have been planted by small farmers in many parts of the world. In countries and conditions as diverse as those of Kakamega, Kisii (Bradley, Chavangi and van Gelder 1985), Muranga'i and Machakos (Tiffen, Mortimore and Gichuki 1993) in Kenya, of parts of the hills of Nepal (Carter and Gilmour 1989; Gilmour 1989) and of Haiti (Murray 1986), farmers have confounded the prophets of doom by planting and protecting trees to increase their density.

Few would deny that rural energy is often a problem or that it bears heavily on women. But the problem was grossly exaggerated in planners' projections. Prescriptions flowing from these analyses were for urgent large-scale afforestation in Africa when the need was for actions which were small-scale and local. The more critical gap was not in woodfuel but in the grasp of the planners.

How could highly trained professionals have been so ignorant and so stupid?

4 EXPLANATIONS OF ERROR

The first three clusters of explanation - concerned with changing reality, with professional norms, and with modes of learning - go some way towards understanding how these errors occurred and persisted. But much remains to be explained. In search of explanation, the fourth cluster, power and power relations, can be examined in terms of three dimensions: dominance; distance; and ego.

4.1 Dominance

Deception through interpersonal dominance is illustrated by the psychoanalysts. They were exceptionally powerful face-to-face with their patients. Personally, most of the psychoanalysts were men, and most of their patients who had been abused were women. Psychologically, they were trained to distance themselves from their patients, to be aloof and unemotional, and even to avoid eye contact. Physically, they made their patients lie horizontally on couches, while they sat upright in chairs. Professionally, they had had long training in medicine and psychology including a personal analysis, and believed in their superior knowledge. Conversely, their patients were exceptionally weak. They were women, and defined as not in their right mind; their behaviour was considered abnormal; and socially they were regarded as sick, mentally ill, subject to fantasies, hallucinations and hysteria, and needing 'treatment'. The exceptional power of the psychoanalysts was then an exceptional disadvantage. They had been so brainwashed by their own analysis and training that they could not accept their patients' reality. Instead, they blamed the victims. Extreme interpersonal power trapped them in projecting their professional fantasy and prevented them from learning. It was the psychoanalysts who first needed therapy.

4.2 Distance

Distance is illustrated by the wheeled tool-carriers. These were designed and developed not...
with village blacksmiths and farmers, not in villages and fields, but in engineering workshops and on research stations. Only as they were 'perfected' in those environments were they then transferred. There was distance, too, between the professionals themselves, who believed that toolcarriers had been successful elsewhere, and who through their selective communications with each other maintained a collective delusion.

Distance was even more extreme with those who calculated the woodfuel gap. They sat one presumes in rooms with calculators and did sums. From the analysis by Leach and Mearns one can only conclude that they neglected to investigate the validity of their statistics, were abysmally ignorant of rural life and conditions, and hardly knew one end of a tree from the other. Insulated by distance, they too, like the psychoanalysts, created for themselves a world of professional fantasy.

4.3 Ego
Ego is involved with the personal respect, recognition and reputation which follow from the performance of a professional task. To acknowledge that the Electra complex was a delusion, that the toolcarrier was a fiasco, that the fuelwood statistics were a fantasy, might have been both personally distressing and professionally damming. It is not (yet) the norm for powerful people willingly admit and parade their mistakes. Instead, to protect their egos and their jobs, they persist through habit, obstinacy and pride, in mistaken beliefs and practices.

Ego is also associated with income and employment. The incomes of psychoanalysts, agricultural engineers, and central planners depend on their professional credibility. Paradoxically, the livelihoods of the psychoanalysts, agricultural engineers and planners were, in the short term, assured by their errors and lack of success, since this justified additional investments of time and money - by patients for further therapy by psychoanalysts, by donors in further toolcarrier research by agricultural engineers, and by donors and governments in large-scale tree-planting projects requiring the services of economists and planners. Being wrong makes more work.

5 NORTH AND SOUTH, UPPERS AND LOWERS
These examples and interpretations are not isolated. Dominance, distance, self-interest and self-esteem are part of a wider social context. Human society can be seen as patterned by hierarchies of power and weakness, of dominance and subordination. Many relationships can then be thought of as North-South, with magnets generating their own mutually reinforcing fields (Figure 1). The Norths, or uppers, dominate the Souths, or lowers. Each magnet, or person, reinforces the field through dominance and instruction, North to South, and through submission and compliance, South to North. It is then difficult for any one magnet, or person, to flip and become S-N instead of N-S, because the whole magnetic field or hierarchy and culture will force her or him to flip back again.

Figure 1 illustrates different conditions. The first is the normal N-S top-down condition, widespread throughout the world. The last is revolutionary, with the magnetic field reversed, but, as in revolutions, with authority at least as strong as before. The middle is partly demagnetized, with each magnet or person freer to spin, and to have varied and changing relationships not just up and down but sideways. To move from 'normal dominance' to 'free to spin' requires that many magnets (people) make personal reversals to turn around and neutralize the prevailing top-down field, freeing others to do the same.

These N-S, upper-lower patterns are found in many relationships (Figure 2). Any one person can be a multiple upper, a multiple lower, or some combination.

North-South fields of power support each other. Ideologies which justify one source of authority, whether that of politician, priest, parent or other upper, generate a field which permeates others. Authoritarian and patriarchal regimes, organizations, education and family relations resonate and are mutually reinforcing. Chain reactions of dominance move downwards. IMF officials dominate the politicians and civil servants of a weak government, who then pass on policies to their people; or a male senior bureaucrat criticizes his subordinate, who in turn criticizes his male subordinate, who then returns home in the evening and abuses his wife, who shouts at the children who kick the cat. Except quite often for the children, and more so, the cat, such chain reactions are a commonplace of negative North-South experience.
6 THE CONSTRUCTION AND TRANSFER OF REALITY

Less well recognized is the manner in which these top-down, upper-lower relationships distort the information which passes vertically both downwards and upwards, and affect the perceptions of those in power; the manner, in short, in which power deceives the powerful.

In practice, uppers define much of reality for lowers. To paraphrase Dorothy Rowe (1989: 16), power is to have your definition of reality prevail over other people’s definition of reality. Professionals, teachers, parents and priests variously instruct, teach, disci-
pline and preach, imparting to the lay public, pupils, children and sinners their own uppers’ beliefs, values, knowledge, categories, and ways of construing the world. In part, this is essential for the continuity of human society, cultures, skills and knowledge. In part, too, this overrides and moulds the perceptions and realities of lowers.

The construction, transfer and imposition of their reality by uppers takes several forms. Some of the more significant are:

**Teaching, training and indoctrination**

Professors, lecturers and schoolteachers are believed to have a monopoly of knowledge, and pupils to be ignorant. In the verse celebrating Jowett, the erudite Master of Balliol College, Oxford:

I come first, my name is Jowett
There’s no knowledge but I know it
I am the Master of this college
What I don’t know isn’t knowledge

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<tr>
<th>Dimension/context</th>
<th>North</th>
<th>South</th>
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<tbody>
<tr>
<td><strong>Spatial</strong></td>
<td>Core (urban, industrial)</td>
<td>Periphery (rural, agricultural)</td>
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<tr>
<td><strong>International and development</strong></td>
<td>The North</td>
<td>The South</td>
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<td>IMF, World Bank</td>
<td>Poor countries</td>
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<td>Donors</td>
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<td>Creditors</td>
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<td><strong>Personal ascriptive</strong></td>
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<td>White</td>
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<td>High ethnic or caste group</td>
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<td><strong>Life cycle</strong></td>
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<td>Young person</td>
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<td><strong>Bureaucratic organization</strong></td>
<td>Senior</td>
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<td>Patron</td>
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<td>Officer</td>
<td>‘Other rank’</td>
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<td></td>
<td>Warden, Guard</td>
<td>Inmate, Prisoner</td>
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<tr>
<td><strong>Social, spiritual</strong></td>
<td>Patron</td>
<td>Client</td>
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<td></td>
<td>Priest</td>
<td>Lay person</td>
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<td>Guru</td>
<td>Disciple</td>
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<td></td>
<td>Doctor, Psychiatrist</td>
<td>Patient</td>
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<tr>
<td><strong>Teaching and learning</strong></td>
<td>Master</td>
<td>Apprentice</td>
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<td>Lecturer</td>
<td>Student</td>
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<td>Teacher</td>
<td>Pupil</td>
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Much teaching and training are a one-way flow. In the Dickensian terms of *Hard Times* (Dickens 1854), they seek to fill empty vessels with facts. Faithful reproduction of those facts and that reality are rewarded with high marks. The facts are, though, constructions or reconstructions of reality by uppers.

Teaching and training are part of a continuum with indoctrination which seeks with varying degrees of psychological and physical duress to convert a lower's view of reality to that of an upper, or that which the upper wishes the lower to have.

- **Induction and socialization**
  Rites of passage, codes of conduct, rules, and approval, acceptance or rejection by those already 'in', whether for professional associations, clubs, cohorts, communities, fraternities, gangs, schools, societies, sororities or total institutions of any sort - all these induce lowers (apprentices, aspirants, initiates, new girls and new boys, novices, probationers, recruits...) to adopt and embrace values, mindsets and behaviours of receiving groups or hierarchies.

- **Transfer of technology**
  Technology generated in central places by uppers is considered superior and transferred to peripheries. So agricultural researchers develop packages of practices and seek to transfer these to farmers. In doing so they seek out farmers who are willing, often those whose conditions are most similar to those of the research station, or they seek through subsidies (as with the wheeled toolcarriers) to induce adoption, recreating the package.

- **Projection through media**
  Books, newspapers, journals, films, television, videos and now computer games embody and transfer the values, categories, and modes of thought and analysis of those who create them, and who are usually uppers in several dimensions. So now through television the values and aspirations of the consumerism of prosperous urban uppers are increasingly projected visibly to poor, remote and rural lowers.

In these processes of training, socialization, transfer and projection, there are positive and negative inducements. The positive inducements include personal gains and development (knowledge, skills, interest, pleasure...), approval (of a teacher, a psychiatrist, a parent), acceptance (into a group or hierarchy), recognition (through good marks, praise, awards...), credit and subsidies (to purchasers of new technology, users of fertilisers...), and rewards (presents, prizes in school, best farmer awards, membership of the club or of the Party...). Negative inducements include physical violence (spanking, beating up, torture...), physical constraint (movement restrictions, confinement...), denial or withdrawal of privileges (food, visits, entertainment...), public humiliation (standing in the corner, forced confessions, parading...), threats to others (relatives, friends, peer group...), and fear associated with all of these.

Strongly top-down conditions present both positive and negative inducements; both carrots and sticks orient people, like donkeys nose to tail, North to South.

**7 UPPERS' DEFENCES AGAINST DISSONANCE**

Often, though, there is a dissonance between the dominant reality of uppers, and the perceptions and information to which they are exposed. To avoid or diminish such dissonance, uppers have a battery of defences:

- **Dogmatic domination**
  Commonly, uppers simply use their power to assert and insist on their reality. Drawing on moral or factual dogmatism, they do this with conviction and authority. In *Hard Times* (Dickens 1854, Chapter 2), Mr Gradgrind is a multiple upper - adult, male, middle class, wealthy, philanthropist, and patron of a school for the poor, and Sissy is a multiple lower - child, female, lower class, poor, beneficiary, and pupil:

  'Sissy is not a name', said Mr Gradgrind.
  'Don't call yourself Sissy. Call yourself Cecilia.'
  'It's father as calls me Sissy, sir,' returned the young girl in a trembling voice and with another curtsy.
  'Then he has no business to do it,' said Mr Gradgrind. 'Tell him he mustn't.'

- **Refusal to accept: denial, avoidance and concealment**
  Discordant reality can be denied: denial is the first, immediate reaction to bereavement. Or reality can be avoided: the simplest defence is to avoid...
exposure to people or experiences which will conflict with beliefs and attitudes. This is so common that both to ‘turn a blind eye to’ and ‘to turn a deaf ear to’ feature in The Methuen Book of Cliches (Ammer 1992). Or discordant reality can simply be buried.

- **Selective perception and interpretation**
  Uppers can be adroit in seeing what they want to see. Bad news can be rationalized and interpreted in the uppers’ frame of reference. Believing is seeing.

- **Devaluing the lower**
  Blaming the victim is widely acceptable to uppers, since it validates their superiority, and the inferiority of the lower. While psychoanalysts’ female victims of child sex abuse present an extreme case, this has been a widespread impediment to learning by uppers. The use of put-down adjectives applied to the poor and weak - conservative, ignorant, illiterate, lazy, obstinate, stubborn, stupid - devalues and even rejects their reality.

8 LOWERS’ RESPONSES
These defences are not always needed, since lowers often present what uppers want to see or hear.

Lowers often accept the imprint of the dominant reality of uppers. Some do this with hope of advancement. Pupils and students learn from and repeat back what they have learnt to their teachers and lecturers. They believe more what they are taught in school than what they experience outside it. Part of the reason is their hope later themselves to become uppers. Other lowers internalize the ideologies of uppers, and accept their lower status, as when ‘low’ ethnic groups such as Harijans in India or Blacks in the Old South of the United States, have accepted and believed the myth of their inferiority.

Some lowers construct or reflect back realities to be acceptable to uppers. When enumerators in questionnaire surveys avoid the inconvenience of actually asking questions, but instead make up the responses, they are concerned above all that their concoctions be credible. They, as lowers, therefore go to pains to ensure that their entries will correspond with what they believe to be their superiors’, uppers’, expectations. Not only does this eliminate deviants and outliers, but it confirms and validates uppers’ conventional views, and pleases them with convenient correlations. Again, in (lower) development consultants’ reports to their (upper) sponsors, there is a gradation from cautious choice of language (‘toned down’) through self-censorship to exaggeration, being economical with the truth, and outright fabrication and lies.

Lowers also protect themselves by withholding information which if presented would be damaging for them. So children do not own up to misdemeanours. Women who had been sexually abused in childhood tended not to reveal this before the mid-1980s, perhaps fearing that psychoanalysts would deny and hurtfully reinterpret their reality.

The behaviour of lowers in reflecting back the reality of uppers or in distorting or filtering information passed upwards can be described variously as reverent, respectful, courteous, polite, prudent, self-seeking, dissembling, deceiving and lying.

For bureaucratic organizations in development, Figure 3 presents the theory and practice of feedback. The motives are varied, and often combine fear of penalties, hope of rewards, and a desire to present the self favourably. Whatever the motives, the powerful uppers are deceived.

9 SELF-SUSTAINING MYTH
The outcome of uppers’ dominance and defences, and lowers’ responses, can be stable systems of power and misinformation. In the case of powerful organizations like the World Bank, or of the nation state, multiple feedback channels mislead, usually with information which exaggerates good performance (Figure 4) (Chambers 1992). Rural development tourism is biased to better areas, model projects, and specially primed informants who know what to say. Questionnaire surveys massage and manufacture realities, biased by deference and prudence of both investigator and respondent. Targeted, top down standardized programmes analogous to the Model T Ford (mass-produced any colour you like as long as it is black) often do not fit, but implementers in their own interests exaggerate performance, even at times with figures further inflated at each level of a hierarchy as they pass upwards. High expenditures on hardware provide opportunities for rents, which are concealed by reporting more done, and done better, than in fact.

Subsidies and rewards are especially misleading. They induce behaviour in lowers which inhibits
learning by uppers: some multi-purpose wheeled toolcarriers appeared to be a success because farmers accepted them when they came free or with large subsidies; bad programmes in agriculture are buffered by subsidies which extension staff dispense to one or two farmers who then present evidence of adoption to visitors. Presents, promotions, prizes can be orchestrated to create an apparent success. So multiple sources of feedback to those in power often mislead, tending to show things better than they are, and so justifying further funds to complete the feedback loop of a self-sustaining myth.

Myths are also sustained by many shades and subtleties of interaction. The simple polarization of actors into dominant uppers and subordinate lowers obscures their many forms of coexistence and the overlays of their multiple shifting realities.

One is the willingness of lowers to say or do anything to please, placate, or pacify an upper. Indian tribals asked by Baljit Malik why they kept being polite to officials who visited them, always agreeing to everything, replied with the saying 'If the circumstances so demand, keep saying YES; if someone asks whether you saw a cat carrying a camel in its mouth, say YES!'. It has been a sobering experience to observe a charismatic outsider interrogate farmers who strain their minds and imaginations to say what they think he wants. Again and again they found the right words. The intelligent prudence of the lowers confirmed the conviction of the upper, unaware of his inadvertent ventriloquism.

Another nuance is tacit connivance. Known misreporting of overfavourable performance is accepted, even welcomed. A conversation with an Officer of the Indian Administrative Service went as follows:

IAS Officer: 'I said to my BDOs - you must each have a VIP circuit. It is part of the game.'
Question: 'Do the VIPs know that they are being given this treatment? Do they know they are not getting the truth?'
IAS Officer: 'They don't want to know. For them, it would only make trouble.'
So uppers accept deception, lowers know it, and uppers know lowers know; but none remark on it. There is an understanding that lowers will show and tell uppers what uppers want to see and hear. There can be many nuances, subtleties, and rationalizations: over time, uppers and lowers can come to share beliefs through mutual deception. And projects and programmes take off into self-sustaining myth.

10 REVERSALS: WHOSE REALITY COUNTS?
Such systems of deception can be resilient, and robustly buffered. The three generations of psychoanalysts who imposed their fantasies on their patients; the agricultural engineers who persisted for year after year in believing that animal-drawn wheeled toolcarriers worked elsewhere; the planners who predicted a treeless Tanzania - these respectable, highly trained professionals, are a warning. The practical question, with hindsight, is to ask how their errors could have been avoided, and so what should be done now.

Three lessons stand out. Each entails an upending or reversal of the normal condition which generated and sustained the error.

The first lesson is to replace dominance with deference and respect, and to reverse positions and roles. If the victims of child sex abuse had sat in the chairs, and the psychoanalysts had lain on the couches, the victims might have spoken out more and might have been believed. If farmers' priorities had determined research, the toolcarriers might never have been started. If poor rural people's needs and incentives had been understood, woodfuel would not have appeared such an acute problem. The solution is to encourage and enable lowers, so that it is they as lowers, not others as uppers, who appraise and analyse their reality. The lesson is to reverse power relations through changing behaviour, as in PRA - sitting down, listening and learning, handing over the stick, facilitating, and having confidence that 'they can do it' (Mascarenhas et al. 1991).
The second lesson is to reduce social and physical distance. If the psychoanalysts had been warm and sympathetic instead of aloof, and met their clients more on their home ground, they might have been told and believed the reality of incest. If the agricultural engineers had used their R&D expertise to support and work with village blacksmiths and farmers in villages, any technology developed should have been more fitting and more adoptable. If the planners had facilitated and experienced topic PRA investigations by villagers into issues of fuel, they could never have forecast a treeless Tanzania or misled themselves into advocating large-scale 'solutions'. The lesson is to spend time close to people and in the field.

The third lesson is to redefine professional ego. If the ego of psychoanalysts had not been welded to a single theoretical and therapeutic framework, they might have been freer to learn from their clients. If the ego and reputation of the agricultural engineers had been less committed to one professional diagnosis and prescription, it would have been easier for them to stop banging their heads on a brick wall at the end of a blind alley. If the professional ego of the planners had been less concerned with reductionist calculations, and more with empirical field reality, they would not have been so misled. The redefinition of professional ego implies change, to eclectic pluralism, embracing error, acknowledging complexity and diversity, and learning through successive approximation. The lesson is to link professional prestige and ego with doubt, critical self-awareness, and enabling others.

These reversals fit the analogy of a top-down magnetic field (Figure 1), where reversals by some actors (magnets) can create a freedom in others to reverse or to spin, by offsetting or neutralizing the field. But, as in institutions, changes are needed at several levels to sustain this freedom or empowerment. The aim is a recurrent pattern, in which uppers and lowers flip and change positions. This can move the culture of an organization towards participation (Pretty and Chambers 1993). The ideal, then, is not the full revolution of what physicists call a 'spin-flip', from one powerful orientation to another which is equal but opposite, but rather a weakening of the top-down field, freeing and enabling lowers to assert their priorities, to interact and learn laterally from colleagues and peers, and to make demands upwards.

Reversals of power relations - through changed behaviour, through uppers spending time close to lowers, and through redefining professional ego - these combine as the synergy of a new professionalism. This resonates with and complements the now familiar rhetoric of participation, decentralization, democracy, diversity, sustainability, accountability, transparency, and empowerment of the poor, vulnerable and weak - the politically correct development vocabulary of the 1990s. To these can now be added the old-fashioned values of honesty and trust. The cynical amorality of our times seems to demand a half-apology for advocating such Victorian virtues. But such advocacy is clinically correct: accountability and transparency require honesty and generate the mutual trust needed for the empowerment of lowers. Moreover, honesty and trust combine to keep down costs and make life better to live.

The deceptions of power will, though, persist. But we now have approaches and methods, such as those of PRA, which confront the problems of uppers' behaviour and attitudes, their distance, and their egos, and which provide the tools for lowers to conduct their own analyses, and to define and express their own realities. So the answers to the questions:

- whose categories and criteria count?
- whose values and preferences?
- whose analysis and planning?
- whose action?
- whose monitoring and evaluation?
- whose reality? whose truth?

can now, in practical terms, be more 'theirs', those of lowers and local people, and less 'ours', those of uppers and of outsider professionals.

These reversals bring new professional rewards. When uppers step down and divest themselves of their self-importance, they are free to move into new roles and relationships. There is new professional fulfilment, even exhilaration, in enabling lowers to express their realities. Uninhibited by power relations, and like the small child in Hans Andersen's story, lowers can then feel free to shout: 'He's no clothes on.' Nor must the Emperors of the IMF, World Bank, aid agencies, Government Departments of the South and North, NGOs and universities be like the Emperor in the story, as the dreadful truth of nakedness dawned upon him. For he
thought to himself: 'I must carry on, or I shall ruin the procession'. Recognizing that many of the clothes of the powerful are deceptions will not ruin the procession of development. To the contrary, development professionals have for too long been ruining it by allowing themselves to be deceived. If all power deceives, then it is in stepping down and empowering others that new and more practical realities can be expressed and shared; and it is through empowering the poor, vulnerable and weak, that their reality will count more, and equity will be better served.

REFERENCES


Bradley, P.N., Chavangi, N., and van Gelder, A., 1985, 'Development research and energy planning in Kenya', Ambio Vol 14 No 4-5: 228-236


Dickens, C., 1854, Hard Times (Collins edition 1981)


Leach, G. and Mearns, R., 1988, Beyond the Woodfuel Crisis: people, land and trees in Africa, London: Earthscan


