

## Changing our perspectives on learning to manage change

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*“... personal and organizational transformation cannot be generated by force, by attraction, or by reason, but rather requires an aesthetic artistry and mutuality that generates challenge and free choice.”*

(Torbert 1991:p.40)

### Abstract

This paper makes an attempt at depicting ‘deep transformation’ – a change in the nature of change and uses a project with subsistence farmers in Mozambique as an illustration in the type of change sort. Using a philosophical and auto-ethnographic approach the first author focuses on the dialect arising between self and culture as he pursues a career in development that addresses the problem of hunger and starvation. Tools of analysis and practice (theory and methodology) are themselves analysed. The implications of this analysis are brought to bear at the site of interaction with subsistent farmers and how this influences the nature and focus of projects is discussed. ‘True’ coherence between the differing worlds of the participants and the environment is sort with the guidance of a self-reflexive ethic of the value of others that is founded in the value of self. The purpose of the paper is not intended as a guide for others but an invitation for the reader to enter with the authors in the challenge of deep transformation as a means to provide for a better present and future for us all.

### Approach

This paper takes a philosophical approach that allows for an “individual exploration” (Powles 1984) that is both heuristic (searching for meaning) and critical. The term critical is used in a Habermasian sense (Simons 1995:pp.125-6).

*In Knowledge and Human Interests Habermas says that an exercise of reason is 'critical' precisely when its impact frees us and others from the interests that constrain us and others from arriving at a greater degree of liberation.”*

This greater degree of liberation arrives in the process of becoming aware of the values and frameworks that direct much of what we do while often remaining illusive of our direct cognition. This approach is supported and enhanced through critical auto-ethnography. Auto-ethnography being a self-reflexive

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process that emerges from a “dialectic between the personal and the cultural” (Alsop 2002). That is, between the personal interest in individual meaning and purpose as it interacts with customary beliefs that are socially transmitted (the cultural).

### **Application of the Approach to a ‘Career’ in Development**

The first time I became aware of any great difference between myself (please note all future personal pronouns refer to the first author) and the culture around me was in my teens. TV images of starving people on the African continent in the 1970s profoundly affected me. What if these people were my family and friends, what would I expect of myself and others? From that time on the answer to that question was intimately tied with my notion of humanity, and whether that label was worthy of any special meaning. At the time I thought this a ‘normal’ response but in retrospect it seems somewhat different to the cultural tendency to either give something to a relief program or forget about it, both being responses to the view that the problem was temporary rather than systemic.

At the time I presumed that the problem was caused by a lack of food, as I could not conceive that the world of which I was a part could allow such human deprivation without good cause. My response therefore was to help produce more food through becoming an agriculturalist. This I did by doing an agricultural degree. While at Hawkesbury Agricultural College, where as a student taking a “Hawkesbury approach” (Bawden 1992), I became aware of complications that could frustrate the production of food. But these early premonitions were not provided tangible meaning until my first overseas work in the Solomon Islands. It was during my first and second jobs firstly assisting local farm managers produce food for a boarding school and secondly supporting villagers’ steepland food gardens that I experienced first hand how the relatively simple problems of food production can be frustrated by human behaviour. Yet my experience of development in the expatriate culture that surrounded me was a focus on technical ability and professionalism in doing a job with a view to getting the next job. That meant particular sensitivity to the needs and wishes of the donor and implementing agencies.

Given my initiating experience and response to the dire need of others this cultural tendency had no appeal to me. Rather I was personally focused on making a tangible difference to the lives of the local people I worked with. I presumed that there was sufficient latitude in development organizations to allow for this but my experience has not been able to substantiate this.

It was in Mozambique where a second crisis, almost as great as the first encounter with hunger and starvation, occurred. This crisis exhibited itself in the realization that the very expatriate institutions that were purportedly promoting development in theory, were in practice mediating against it. Local institutions were also intimately connected with this problem. This devastating realization almost saw me ‘give up’ on the problem and just go and live my own life as comfortably as I could. But the problems of hunger and starvation persist and if humanity is to have any value to me I must continue, to “make common cause” (to borrow a phrase from Susan George (George 1988:p.263) with those whose experience it is.

### **Focus of the Approach**

Throughout much of my career I have noticed a focal problem for the expatriate culture of development has been how can we get subsistence farmers (hereafter referred to as farmers) to change? This culture appears blind to such questions as why it is that farmers don’t change according to a project’s

prescriptions? That there could be something wrong with the prescriptions, or there may be a need for the experts or the institutions themselves to change. This was in contrast to my personal understanding that the farmers were in a difficult position and so would be the first to change if they saw something that benefited them. Sometimes their belief systems, culture or education may affect this process just as it affects expatriates. Expatriates make plenty of mistakes in the process of their learning and an equal 'space' ethically needs to be provided in the case of the farmer as well. Change for me became a focus on dialectic interaction, that has an allegiance to farmer's needs (Collinson 2001), facilitated by an ethic that reflects the 'legitimacy of others' to use a phrase from Maturana and Varela in (Bawden 1995:p.236). Such a view leaves itself open to the question of changing oneself or the views by which change itself is defined and practiced.

The question that remains is how can the focus on the farmer as 'object' of development and its blindness to the need for institutional or cultural change be challenged? In (Cooper and Packard 1997:p.vii) a similar problem is noted and the response of this group of sociologists was to move toward an equal focus on examining the 'institutions' that were defining the situation.

*As Africanists, we were concerned that a powerful apparatus of social scientific inquiry was being turned toward Africans - their histories, their cultures, their literatures, their politics - without a comparable examination of the investigatory apparatus itself, or indeed of those institutions of the western world which impinged directly and indirectly on Africans' lives.*

This group then moved on from their institutional analysis to examine the 'development encounters' at the sites where these institutions worked (Ibid, p.viii).

*The idea was to move from an historical, sociological, intellectual, and political analysis of the institutions that constituted the development apparatus toward a closer examination of the dynamics of interaction that occurred on the sites of development activities.*

Susan George in (George 1988:pp.256-7) makes a similar observation.

*Normally development theorists should be trained to test their models by observing **what they do to people** [emphasis in the original], since human welfare is theoretically the goal of development.*

This paper endeavours to do this through a case study. Prior to this, however, it is intended to investigate briefly two frameworks/worldviews that can alter the formation, application and interpretation of theories and methodologies, and in turn the kind the development we do.

### **Some Onto-Epistemological Considerations**

I grew up in a world where the nature of my being (ontology) reflected a reality outside of me that as an observer I presumed to talk about in objective terms as a one-to-one relationship between an object and my experience of it. Words also tended to be assumed to have a one-to-one meaning with experience and epistemological assumptions of how I could gain knowledge largely revolved around learning from others who already knew or were given special status as 'knowers', such as experts and teachers.

It was not surprising then that I wanted to learn as much as I could from others to resolve the problem of hunger and starvation. To learn from institutions and people I viewed as experts. However, in time my learning ran into problems as the understanding of my experiences began to run contrary to advice from others and what I had previously learnt. I had to begin learning for myself, in relationship with my environment. This change was assisted through adult learning principles such as self-directedness (Knowles 1984), Zukav's comparison of Classical and New Physics (Zukav 1979) that Uphoff applied

in his practice of sociology (Uphoff 1992), and Maturana's explanation of "(objectivity)" as one explanatory domain of coherences where validity claims in differing domains lead to many realities (Maturana 1994).

I found the explanations reflected in the difference between Classical (Newtonian) and New (Post-Newtonian) Physics helped me understand the changes occurring with my onto-epistemology. For this reason I will explain a little of these differences. Science is changed when the scientist is included in with their science. The observer was seen to make a difference to the observation according to the New Physics (the quantum physics and relativity that resulted from the publishing of Einstein's papers on those topics in 1900 and 1905). The implications of light being both a wave and a particle and the scientist's observing as influencing the observation was a radical change compared to Classical Physics. Zukav (Zukav 1979) makes a most readable account of these differences and the implications they have. Classical Physics claimed to be based on 'absolute truth' (the way nature really is 'behind the scenes'), where the knower is an observer and each element of theory has a 'one-to-one relation' with reality. The philosophical implications lead to impotence in the face of a Great Machine which is the universe. The epistemological assumption is that the separate parts together constitute reality. Quantum Physics however, claims only to correlate experience correctly, where the knower is a participator and the theory does not have a 'one-to-one relation' with reality. Philosophically this leads to the possibility that our reality is what we choose to make it and epistemologically assumes an unbroken wholeness (Zukav 1979:pp. 65-65 & 314-326).

(Williams 1988:pp.124-38) points out the differing nature of causation. Quantum Physics giving rise to causation through a mutual simultaneous shaping compared to the necessary and sufficient conditions having deterministic effects in Classical Physics. Quantum physics provided a whole new way of looking at the world and our position in it.

Rather than looking for universal laws or methodologies that could be used to direct my work or by which my work could direct other people's work I began to be aware that theories cannot be greater than the theory maker nor a complete substitute for experience. I am speaking in the domain of 'development' here not natural science.

### **The Selective Application of Theory and Methodology**

This ongoing change in my onto-epistemological understanding assisted me with a problem that I faced in my work with farmers in such countries as Australia, Solomon Islands, Mozambique, Cambodia and now for the last 10 years part-time, in my doctoral studies. That problem was, how could I use theories and methodologies that have largely been developed in a different context? Directly using them would be like using an answer for the wrong question, like expert knowledge imported to foreign domains. To transpose it is to mistake technical alacrity for competence. Yet to personalise or internalise it and use the insights as they 'resonate' or 'cohere' with the new environment leaves one open to the claim of its misuse. Yet this is what happens in our use of words and language.

I was also becoming aware that it was important not to be limited by the known. That there were times where it was important to forgo the use of theory and methodology. And seek the 'coherances' and 'resonances' of the new situation – the unexplainable. Marianne Mithun provides an example of this in relation to the foundational contribution made to American anthropology by German American Franz Boas (1858-1942). He forwent the comparison of North American languages with Greek or Latin.

*... he recognised right away that you don't describe these languages [North American] in terms of Greek grammar or Latin grammar, you don't just look for the six cases that are supposed to be there. You sit and let it happen. You let people talk, and then you see the structures that evolve as they speak. Which means you see distinctions you would never have dreamed possible, and you see generalisations you would never have dreamed possible...(Mithun 2003)*

I began to use theory and methodology as a metaphor and myth. As a means of gaining meaning and insight that cohered with my new situation, rather than a means of directing my or anyone else's thoughts or actions. A means of providing confidence to enter the notion of learning as an 'unravelling' (Salner 2001), of opening Pandora's Box by addressing the double-loop learning described in (Argyris and Schon 1980:pp.4&134).

*There is in this sort of episode a double feedback loop which connects the detection of error not only to strategies and assumptions for effective performance but to the very norms which define effective performance.*

Of practicing a science alluded to by Zukav that is not limited by the known. Of the experience of Pirsig's 'Quality' through his notion of 'stuckness' and 'gumption'. And finally that of Dante's *Inferno* whereby the learner as Virgil is brought to the edge of the inferno "with understanding/and art", through which he alone must pass. The learner is crowned and mitred over themselves. That is, the authority of state and church, and to that I would add university, is lost to the 'self'. This does not mean we abandon all authority, theory or methodology all the time. Rather, a new situation or experience may necessitate the letting go of what we know before new knowledge can be formed.

### **What Kind of Change?**

Based on the premise that we cannot expect things to change by doing the same thing, a 'bad' situation (and it should be noted it may not be seen as bad within a different culture or worldview), as I took hunger and starvation to be, may provide motivation for radical change or transformation. However, change according to (Allen 2000:p.1495) may occur "in structure, appearance, or character." It is change in 'character' with its corresponding changes in structure and appearance that best fits the nature of change I have experienced. The type alluded to in our discussion to this point and the type that results in a change in the norms that define how the problem is defined. This change is different to the change I have most frequently experienced in development projects where the focus is on improving efficiency and effectiveness without sufficient questioning of the norms by which those factors are defined. I would describe these kinds of changes as changes of appearance that may also include changes in structure, but not critically sufficient to include changes in character.

But what do all these ideas look like in real life? Let me try and illustrate it in the following case study. Again due to space I have decided to focus mainly on 'transformations of character', or 'deep transformation' to borrow a term Richard Bawden has recently acquainted me with.

### **A Case Study –Mozambique**

#### *A brief field visit*

As an introduction to the case study I would like to take you on a brief mental field trip to the village and surrounding areas of *Julius Nyerere*, the focus of project activities. This village had a population of

22,000 people (3,200 families) located about 35km from Xai-Xai (itself about 200km north of Maputo, capital of Mozambique), capital of Gaza Province. For all intents and purposes we are on an island as it is too dangerous to travel much more than about 10km in any direction from Xai-Xai, with exception to this line along the Limpopo valley where the village is located. All project staff travel by plane from Maputo and any goods trucked through risked being destroyed along the way. We are not allowed to stay in the village overnight for security reasons.

You will find that most farmers were women, as many of the men worked in the South African gold mines. Their typical day was tough, rising early and leaving around 5.30am to walk anywhere from 5-10km or more to their farm plots in the valley. On these plots they grew mainly corn and beans. The heavy clay soils of the valley floor required cultivation with traction animals or tractors, but both were in very short supply. These clay soils make it very difficult to visit the farmers in the valley any time there is rain about or when the soil is wet. After working the women would return anytime after about 1pm in the heat of the day. It was not unusual to see women carrying a load on their heads (firewood, thatch, or harvested corn) with a small child and/or a basket in one or both arms, or on their back. After returning home the school children may be sent to collect water from a distant well and the ladies started preparation of the evening meal, undertaking the strenuous work of pillaring and grinding the corn by hand. At the time Mozambique was gripped by what could best be described as general terrorism and banditry. Sometimes it was necessary for the farmers to leave the village at night to sleep in the valley below to avoid raids of destruction, looting, killing and abduction. Most farmers also had plots of land on the higher sandy plateau upon which the village was located in order to avoid those times when the valley flooded. In this sandy area cashews and peanuts were grown.

### *The project*

The Australia: Save the Children Fund Australia (SCFA), *Food Security and Self-Reliance Project, Mozambique* ran from 1989 to 1992 (SCFA 1989). About A\$1 million was spent on this AusAID funded project over three years. The first author of this paper was the Agricultural Coordinator of the project and the only SCFA expatriate residing in Mozambique. The project was part of a much larger Save the Children Federation (US) [hereafter referred to as SCF(US) ] project that included health and emergency sectors. SCF(US) had a central office in Maputo that was responsible for all its projects in Mozambique. It provided the country logistics for the project while its Xai-Xai office from which the SCF(US) Project Manager and SCF(US) Health Coordinator worked, was also to provide additional support to SCFA.

In trying to move its agricultural production above 10% of its domestic grain needs (UNDP 1989) Mozambique had followed a path of state farms, and then cooperatives, and as each endeavour failed a new approach was put forward; this time it was the notion of a *casa agraria*. Literally translated as an agricultural house, it was seen to be a community-based agricultural centre that provided farm inputs, grain storage and processing facilities, technical advice, and subsistence supplies. It was proposed that this entity could be self sufficient, an unusual aim I thought, given that government was far from self-sufficient itself and yet had greater access to outside resources.

### *Background to the case study*

This case study is not about an 'ideal' conceptual study that from start to finish was guided by a particular methodology. Rather it was a 'hands on' process to see if the personal understandings on development and worldviews that emerged from my previous experiences and theories were of wider

cultural use. In this particular case a project proposal had already been completed and funded and the Project Manager of SCFA and the SC(US) Country Director for Africa were looking for someone to coordinate it.

The proposal document (SCFA 1989) as I saw it reflected the way I saw projects before working overseas. Only now I was beginning to see presumptions surrounding the notion of 'expert', the relatively 'static' and 'benign' environments, and the farmer seen as 'not knowing' and thus in need of tutelage. An additional problem I was beginning to be ware of were that project documents resulted from proposals developed to gaining funding. Here, special sensitivity is provided to the donor agency. The problem after funding is that it then becomes the document upon which implementation is based. The project proposal saw the main problems of farmers as lack of training and farm inputs. It depended upon a formal training program at the Provincial Department of Agriculture Training Centre for casa agraria staff and farmers. The use of off farm demonstration projects, a baseline survey of 100% of farmers every six months, the construction of two Casa Agrarias and supply of seeds and farm inputs, a logical framework and a budget. The purpose and justification of the project was to lift farmer grain and livestock production by 20% and the amount of produce they marketed by 20% over the project period.

In seeing the project document as a static representation of a dynamic situation I was able to suggest changes in approach. No matter how good the expert and not-so-expert analysis is in developing a project proposal, things change. Mitigating against the project document representing the situation in the field was the time that elapsed from the initial fieldwork and the limited participation of local people. Such factors become very important when operating in a very difficult environment such as Mozambique was at this time. I was prepared to accept the goals of the project, as I thought that in a country producing only 10% of its food needs that any work in this area would be of interest and benefit to farmers. However, my view of efficiency and effectiveness was not the implementation of the project plan as it stood but by embracing the goal of increasing food production through a process of interacting with the farmers in their environment according to the needs as they saw it and the expectations of the donors. My job at this stage was to align such views with the expectations of SCFA and SCF(US). The other observation I made to them was that pending the local circumstances I would most probably change the training program from a formal classroom oriented one to training program based on successful interventions in the field. My learning at university and experience in the Solomon Islands had shown the effectiveness of such an approach with farmers.

SCFA and SCF(US) were happy to employ me on this basis. AusAID provided a project structure that included a Project Coordinating Committee (PCC) Meetings every six months. This group included all participant sectors, including farmer and village representatives. The PCC meetings were an ideal means whereby changes in the project could be made according to changes on site.

I was told by the SCF(US) Country Director for Africa that they had tried to achieve something in agriculture at the project site previously but nothing was really achieved and I would be starting from scratch. SCF(US) was a large organisation at the time with an annual budget in the order of US\$85million, SCFA was tiny in this regard. I was expectantly looking to learn much from them. Unfortunately it did not turn out like that. What started out as a supportive environment gradually got worse the closer I got to the project site. The two people I negotiated with from SCFA and SCF(US) both changed jobs and I found myself in Xai-Xai at the other end of the table from five SCF(US) expatriates from New York, Maputo and Xai-Xai all saying that what I was doing was wrong. I asked them what document they were using and they showed me a proposal dated one year earlier to the one that SCFA, SCF(US) and AusAID had signed off on and which provided the basis for my contract! Yet

they appeared that they were not willing to change their orientation to that of the existing legal document.

What previously I had seen to be substantial support from SCF(US) became minimal and at the Xai-Xai level counter productive. I will take one point to illustrate this. SCF(US) had agreed to provide suitable office space for me in Xai-Xai. They had been provided sufficient office space for the Health and Emergency sectors by the Provincial Department of Agriculture (PDA) due to the overall project having an agricultural component. They wanted to keep this space for themselves. I suggested that we look for additional office space together and they said they were happy with what they had. As a result of this I negotiated with the PDA to renovate a building area they had outside the main building so the social club could shift to that area and allow us to use the office area they previously used. After all this work was done I was told by the Health and Emergency sector coordinators that it was not fair that we had all that space and that they should be able to take up half of the new area I had arranged. I agreed with this and then when I started to arrange to fix the toilet in the new office area, the Health Coordinator protested against it as it would reduce the interaction between the staff upstairs with the staff downstairs. I could multiply examples like this ten's of times. The purpose in bringing these issues up is that I was neither looking for nor expecting these things to happen, yet they happened and theory does not have much to say about them. Such a situation places extreme pressure and creates a head wind that a project has to counteract before anything can get done.

Contrary to the SCF(US) Country Director for Africa's view that nothing much agriculturally had been accomplished the Emergency and Health Coordinators view was that a lot had been accomplished although they could provide no evidence as far as project documentation or physical evidence other than a casa agraria of local materials that was falling apart and a group of PDA and casa agraria extension workers that were nominally working with 80 farmers and making bricks to build a new casa agraria. They were still very much attached to directing the agricultural project and I was happy for them to do this while I was establishing the project infrastructure and talking to as many people as I could about the project.

Whether I came across PDA, District Department of Agriculture (DDA), or other project staff and introduced myself as the Agricultural Coordinator for Save the Children I was often confronted with the same comments. These noted that I was from the group who built a casa agraria of local materials (The Director of PDA thought it a great novelty that Americans came half way around the world to show them how to build a casa agraria of local materials), introduced crops not recommended by PDA or DDA and introduced cattle into the village area contrary to local health regulations.

### *One world one truth Vs many worlds many truths*

The problematic situation that arose with the Emergency and Health Coordinators came to reflect the world from which I was coming from and the world within which many projects proceed. I was happy for them to have their point of view but I could not understand why they persisted in trying to change my point of view. Especially in a domain in which they had no training and very little experience. Yet that had been the way I learnt in the past. To find someone I thought that knew more than me and do what they say. They were just two people I mused who 'knew' and therefore expected everyone else to learn from them. I have seen projects often like this, with a focus on changing the farmer. This is not unlike a Classical Physics view of the world. Such a world resonated with my conservative religious heritage of people who knew the 'truth' and therefore conversations became a one-way affair from the truth holder to those without the truth. Yet it was the last thing I wanted to appear to the 80 farmers who I was yet to meet as a group.



How could a project be transformed along the lines of a New Physics notion of the world? A world where I can share my 'truth' and you can share yours. Of creating shared worlds that cohere as each individual world is *transcended*.

### *An adventure in process*

The first major interaction around which the success of the project coalesced illustrates the difference between the approach used and the dominant approach of most other projects at the time. This was achieved not by implementing a pre-planned project (note that all project documents at the time of my arrival were in English – at my suggestion all major documents were translated into Portuguese – it would have been better to translate them into Changana, the local language, but we could not do everything), but rather, based on interacting with the vital daily issues in a Freireian sense of consciousness raising (Freire 1970). A process whereby people *as knowing subjects* rather than as objects or recipients, *achieve a deepening awareness both of the socio-cultural reality that shapes their lives and of their capacity to transform that reality*.

At some stage the project had to face 80 farmers who had received no substantial benefit from the previous two years of working with the project. If a project revitalisation was going to succeed, it needed to at once demonstrate that it had something to offer, that we were trustworthy partners who would listen and act on what we heard, and that we could help the farmers improve their own capacity to act on their own problems. This was achieved by accessing the experience-base and the support of the project agricultural extensionists and of the Casa Agraria President and its workers. They were all in agreement that what the farmers most needed at that time, was corn seed to plant, and that the best way of delivering this to them would be via a credit program. This correlated with my own observations and talks with farmers directly so corn seed was immediately ordered. Most had to be imported and this itself was a difficult task as much cargo was destroyed en-route due to the bandits. It was also thought that the farmers might show interest in trialling small plots of a new variety of corn, together with a plan of pest control to ensure better seedling establishment.

The first meeting with the farmers was preceded by a lunch - a show of traditional hospitality by the farmers. Instead of talking to the farmers about the new project and what it would do, we asked the farmers what their greatest need was at that time. They said that it was for corn seed as the season had two false starts that had exhausted all the farmers seed corn. When asked the best way they thought the project could help them in this regard, they also suggested a credit program with the original amount plus 50% extra seed being paid back after harvest. I would have been happy with 10% extra corn being returned on top of the amount provided but the farmers insisted that 50% was appropriate! The project was happy to take the risk of seasonal failure and not expect repayment should lack of rain result in no harvest. We did, however, need information from the farmers regarding the number and size of farms in each zone, in order to help us plan for the amount of seed that would be required. We also asked for a contact farmer that the extensionists could visit in each zone to develop the program further, particularly in relation to undertaking on-farm experiments with regard to seed varieties and pest control following germination. The extensionists had been trying to get this information for two years, and it had seemed impossible; now the farmers were willingly cooperating to provide the required information. The joy of the extensionists was palpable. It should be noted that until we were able to discover the natural working structure of the farmers in the valley our work could not develop. This was different to the structure of the same group of people in the village.

This was our first joint operation with the farmers and things just blossomed from there. It resulted in a good harvest at a time when no other grain was available in the district. People in Xai-Xai knew where to go to get grain, and word got out such that the Mozambican Experimental Television Station in Maputo came out and made a documentary called *Sementes a Crédito* [Seed by Credit] (Mozambique Experimental Television Station 1991) without any prompting on our part. In that documentary Geramias Mondlane the Mozambican counterpart Agricultural Coordinator for the project makes three points about the project.

1. That the project did not grow through inviting more farmers to work with it ... the farmers saw what the project was doing and would invite the project to work with them.
2. The difference between this project and other projects was that it had no fixed methodology of rural development. For example, this season our project is selling butter beans (*feijão manteiga*) something that no other project in the province is doing. Yet all the projects would have seen last year that the butter bean crop failed, but no other project was flexible enough to do anything about it.
3. The project does not order anything like hoes or seeds without first going to the farmers and asking them what they think about it.

As a result of this successful interaction the number of farmers participating jumped from 80 to 530, and then to 1350 within less than 18 months, all without the project undertaking any self-promotion. On their 10m square demonstration plots, farmers' yields doubled (to 2t/ha) through a combination of new varieties and different planting densities, when compared with the rest of their fields. Yet given such success, the project was just at a starting point as the basis for dealing with the larger problems limiting grain production – those being the need for irrigation, land preparation and pest control (Mattner 1990:p.12) .

The level of achievement of the project was well regarded. The Director of PDA said we had the best *case agraria* in the province and the Village President said:

*...that they have not worked with a project that has made development look so achievable for them.* (SCFA 1991:p.5)

## **In Conclusion**

At the beginning of my journey in development with subsistent farmers I was only too willing to follow the directions and advice of those I thought that knew better than me. This was supported by an objective world view where specialists held a privileged place closer to that reality than the self. Under such a view farmers are often seen as 'objects' to be changed, and often this can be a sole focus of a pre-planned project. But such a process can be blind to the apparatus that is making these claims about the farmer, and the reality of poor field results.

When conflict arises between personal experience and cultures interpretation of it a challenge arises that provide for the possibility to envision a different world. I found that different world symbolised in New Physics, a world where projects could be involved in a process of 'mutual simultaneous shaping' to quote (Williams 1988:pp.124-38) again. The implications for development projects, in my view, is a sensitivity to farmer-project interaction that is equal to that between the institution and the donor.

The case study in Mozambique showed the possibility for me, of achieving project aims via interacting directly with farmers needs as they see them at the time in dialectic with how the project saw them. The advantage of this is that as they are part of the creation process there is no residual problem of trying to

change their mind. However, institutional change appears to be more problematic, particularly in regard to maintaining their privileged position of defining the situation.

## Bibliography

- Allen, R., Ed. (2000). The new Penguin English dictionary. London, Penguin Books.
- Alsop, C. K. (2002). "Home and away: Self-reflexive auto/ethnography." Forum: Qualitative Social Research 3(3).
- Argyris, C. and D. Schon (1980). What is an organization that it may learn? Organisations as systems. M. Lockett and R. Spear. London, Open University Press.
- Bawden, R. (1995). "I as in academy: Learning to be systemic." Systems Research 12(3): 229-238.
- Bawden, R. J. (1992). "Systems approaches to agricultural development: The Hawkesbury experience." Agricultural Systems 40: 153-176.
- Collinson, M. (2001). "Institutional and professional obstacles to a more effective research process for smallholder agriculture." Agricultural Systems 69(1-2): 27-36.
- Cooper, F. and R. Packard, Eds. (1997). International development and the social sciences. Essays on the history and politics of knowledge. Berkeley, University of California Press.
- Freire, P. (1970). Cultural action for freedom. Cambridge (USA), Harvard Educational Review.
- George, S. (1988). A fate worse than debt. London, Penguin Books.
- Knowles, M. S. (1984). Introduction: The art and science of helping adults learn. Andragogy in action - applying modern principles of adult learning. M. S. Knowles. San Francisco, Jossey-Bass: 1-21.
- Mattner, H. (1990). Report of survey undertaken in the village of Julius Nyerere, Xai-Xai District, Gaza Province in November 1990. Xai-Xai, Mozambique, Save the Children Fund Australia: 22.
- Maturana, H. R. and F. J. Varela (1987). The tree of knowledge. London, Shambhala Publications, Inc.
- Maturana, H. (1994). Maturana Conference. Sydney, Australia.
- Mithun, M. (2003). The vanishing languages of North America. Sydney, Australian Broadcast Commission.
- Mozambique Experimental Television (1991). Sementes a crédito. Maputo.
- Powles, M. (1984). The role of postgraduates in Australian research. Melbourne, Council of Australian Postgraduate Association: 33.
- Salner, M. (2001). Personal communication 12th September 2001. H. Mattner. Sydney, NSW, Harold Mattner.
- SCFA (1989). Project proposal to increase food security and self-reliance in a sub-district of Gaza Province, Mozambique. Collingwood, Victoria, Save the Children Fund Australia (SCFA).
- SCFA (1991). Australia: Save the Children Fund Australia: Food Security and Self Reliance Project, Mozambique. Half-yearly progress report - first draft. January to June, 1991. Collingwood, Australia, Save the Children Fund Australia: 29.
- Simons, R. G. (1995). Competing gospels: public theology and economic theory. Sydney, E.J. Dwyer (Australia) Pty Ltd.
- Torbert, W. R. (1991). The power of balance: transforming self, society, and scientific inquiry. Newbury Park, USA, Sage Publications Inc.
- UNDP (1989). Development co-operation, People's Republic of Mozambique - 1988 report. Maputo, United Nations Development Program.
- Uphoff, N. (1992). Learning from Gal Oya possibilities for participatory development and post-Newtonian social science. New York, Cornell University Press.
- Williams, C. C. (1988). Examining the nature of domestic labour. Aldershot, U.K., Avebury.
- Zukav, G. (1979). The dancing Wu Li masters an overview of the new physics. New York, William Morrow and company, Inc.

