

Chapter Three -

Constructing the Intelligibility of the Events with Participant Observation

Technical assistance to industry is a new field to study for anthropology and the analytical instruments used here are equally uncharted. All events constituting project implementation are submitted to one approach consisting essentially of a type of fieldwork - gathering data through participant observation. This chapter examines all aspects of this fieldwork approach. Fundamental aspects are immediately introduced and citations from the events serve as illustrations. Instead of defining the method, it is more convenient to demonstrate it - thus avoiding an error-prone, purely theoretical description.

Beyond the research related objectives, we have already envisaged an even higher ambition. The case studies should enable other developers and developpees to find greater value in technical assistance in general. This requires integrating the results into the analysis. Developers and developpees should not simply accept that latent processes decide the fate of the projects studied. Instead by following the analysis itself, they are enabled to examine the latent processes in their own practice. Analysing Appui Technique and Autogeneración is an anthropological exploration of technical assistance. If such an exploration is validated and received by the particular protagonists¹ in the two cases, it can support others to understand their own practices².

The protagonists efforts for understanding their situation and their means to do so were not fundamentally different from those of an anthropologist-observer. What distinguishes an observer is the privileged position of providing an interpretation. Protagonists reflect on events just like observers, and protagonists almost always seek to exploit this privileged observer

¹ 'Protagonist' is a label used in French contemporary anthropology to describe an actor who is pursuing an agenda coherent in his/her own life-world. Writing about a group of actors implies that they "act" on a "stage" bringing them together. Several protagonists interact equally on a stage, but their view on what constitutes that stage can be quite different. Their interaction can be determined also by the differences in their interpretation of the nature of their relations. In that sense, the individuals we describe are 'protagonists' of the social process they saw reflected in the projects.

² With the exception of most Chadians, all individuals mentioned in this book have read prior to publication. Their responses are integrated throughout this analysis.

position to change the course of events. This creates the possibility to understand a technical assistance project. To explain this epistemological approach one can compare it to a pressure cooker. A project is an ideological pressure cooker and the observer position functions like a little hole in that cooker, where some vapour escapes. Being small in relation to the cooker, the hole does not alter the pressure inside, but allows to measure the pressure. Similarly, the observer does not alter the project but allows us read the ideological stakes for developers and developpees. These stakes include professional careers, reputations, pride, salaries, profits, market share and so on.

This epistemological approach has been pursued since the 1970s especially with urban and industrial phenomena in contemporary France³. Ideally, the understanding of the social reality is the joint product of an observer and the protagonists of the social processes occurring in the field studied. The classic instruments of participant observation are reinforced. Fieldwork for this approach fails if it does not address the impact of participation or does not define how the analysis exceeds participation.

This epistemological approach is not specific to development aid, nor is it pertinent here because the observer was also a technical expert. Participant observation is always conditioned by the social and cultural processes inherent in the social reality studied. This implied that a European middle-class observer (the author) was automatically linked to the colonial past and to development aid. Research was seen as another professional activity with similar motivations as business or development agency activity. But it is not the legacy of development aid which requires this approach. What makes this approach the only viable one in technical assistance is the intensity of the developer/developpee encounter⁴. The protagonists of the cases involuntarily acted far from their social support. They took risks involving fundamental questions for their lives. The dynamics of a project were violent and changing. Despite the aid legacy an observation was often a singular event. The approach is pertinent to singular observations. Prolonged fieldwork to gather more data later on is very difficult in technical assistance.

³ M. Abélès, G. Althabe and M. Augé have started their scientific work in Africa in the late 1950s, and then applied their fieldwork skills in France. Today, they collaborate in the Centre d'Anthropologie des Mondes Contemporains of the Ecole des Hautes Etudes en Sciences Sociales (EHESS), where I wrote the first version of this study. Their recent publications, as well as those translated into English, are included in the bibliography. The Centre's other researchers are J. Bazin, A. Bensa, M. de la Pradelle, J. Friedman, J. Jamin and E. Terray.

⁴ It is up for judgement whether this approach can provide the core for the interface research pursued by Long. Due to the solid anthropological roots of Long's methodology, this seems to be the case. But for the same reason, the institutional reception of the results obtained is even more difficult, as suggested alluding to Marc Poncelet (p.28). We return to this in Chapter 3.3.

Following from this epistemology, we must first look at the stakes (section 3.1), then understand the protagonists' attempts to exploit the observer position (section 3.2) and finally recognize the responses of the protagonists and the development agencies to the written results (section 3.3). While these three steps of the analysis are independent, they are interrelated and reinforce each other. Due to the protagonists' manipulation of the observer position we can verify what was at stake for them, it is then possible to see how their reactions to the written results (this present text was sent to them prior to the publication of this book) are determined by the operational routines of development agencies, and in turn, how these operational routines can be overcome. This is the fundamental reason why we can make progress on the basic questions - 'what were the individuals doing' and 'what the development agencies'? We will finally conclude on this epistemology and the research objectives for an anthropology of development in section 6.2.1. When we have derived management goals from the cultural distance between the protagonists, the final analytical step, these results can be confronted with the premises underlying the participant observation.

Where appropriate, the analogous elements from the two cases are juxtaposed to highlight the similarities. These are surprising given the gross differences in the context as shown in Table 1 (Ch.4 contains a detailed description). With a GDP of 150 US\$, Chad is one of the four poorest countries of the world. Chad exports mainly cotton and imports all industrial goods. Without an economic base, there is no education or even health services for a large part of the population. Most employment is in the informal sector and provides no social insurance or vocational education which would allow someone ambitions beyond mere survival. The technology in Appui Technique reflected this. The skills involved are no longer used in industrialized countries. In Mexico by contrast, education, social security and infrastructure are well established, although these remain beyond the reach of a substantial part of the population. The technological object of Autogeneración cogeneration⁵, is state-of-the-art in energy engineering. Economically, historically, politically and technologically the case studies are almost opposites. This serves two purposes. First, they represent vastly different ends of the technical assistance spectrum. Secondly, if no other variable explains the similarity between latent processes, the only common variable remains the developer/developpee encounter in technical assistance itself !

⁵ Cogeneration, or Combined Heat and Power (CHP), comprises electricity generation, for example with gas turbines or large piston engines, and waste heat utilization in industrial processes or in residential uses. Esp. in the U.S., this technology expanded after the second oil shock because it allows to raise the overall thermal efficiency from around 40 % to up to 80 % in the best cases.

TABLE 1: Juxtaposition of the conditions and actors

	Appui Technique (Chad)	Autogeneración (Mexico)
GDP per capita[US\$]	150	1,830
National average life expectancy [years]	46	69
Project budget [US\$]	1,000,000	600,000
Implementation[years]	5	2
Intended recipients	artisans in the informal sector ⁶ , mainly welders and metal-workers	engineers in industries with more than 5 MW _{el} energy consumption
Institutions	French NGO / local government	US consulting company / local government
Knowledge	Manufacturing of agricultural machinery	Engineering design of cogeneration power plants
Foreign / local actors participating in the TA events	Martin, Jacques, Pascal, Thomas / Tahem, Dambai, Atula	John, Joe, Jack, Jim, Bill, Ben, David, Tom / María, José, Ramón, Miguel, Hector, Aníbal, Rodolfo, Geraldo, Silvio, Severino, Lorenzo, Octavio, Juan

3.1 Project Dynamics Generated by the Actors' Life-worlds

We now establish the relationship between the empirical object of study (the projects themselves) and the intellectual object proper, the developer / developpee encounter. Do we simply confound the two, or can projects serve as anthropology's primary focus? The symbolic economy of the life-worlds (Chadian and French in one case, Mexican and U.S. engineers in the other) determined the dynamics of the exchanges in each case. We will re-confirm this later describing the idiosyncrasy of each implementation (Ch.4). Here, we demonstrate that the different perspectives of the actors were coherent and complementary. Citations from interviews and taped meetings underline this.

⁶As these were also in daily contact with the experts, the most prominent are introduced individually, Mohammad, Osama, Rahman and Ngerbo. Others appear only by name. Annex 1 shows pictures of their work on the prototypes which were the objects of the project. The literature concerning the informal sector is extensive.

The actors are introduced as they appear. They addressed each other with their first names, those in the text are fictitious. The terms 'foreigner' and 'developer' are exchangeable and so are 'local expert' and 'developee'. 'Foreigner' and 'local expert' allude to their objective position as professionals. 'Developer' and 'developee' allude to their subjective positions as members of the project. 'Developer' is a rhetorical figure and efforts to decipher such a social category failed (for example Guth 1982). They are "vaguely aligned by the virtue of their route into development", (Kaufman 1997:129). They are also called development experts, consultants, development cadre or advisors, but increasingly 'developer' is used in the specialized literature. 'Developee' (or developed) is the corresponding term for the recipient of aid and advice. By their will to participate in the observed events, these individuals were developers and developees, but this is only part of their lives. As a label we use the next best objective condition they have in common: some are local and the others are foreign.

First, we must acknowledge the force of the imaginary constructed across the interface between foreign and local actors. Most of these actors felt that the figures of the big brother, the developer's crusade, Malinchismo⁷ and so on, were too simplistic. Nevertheless, the ideological operations that animated the characters of this psychological drama were violent and strong. Much energy was invested in these extravagant intellectual objects, in their construction and maintenance, although they were never reified by the actors. Beyond these objects lay a symbolic system that we can trace by reconstructing the points of reference.

In technological terms, one can identify an issue that limited the success of the projects. In Appui Technique, conflict of interest over the product quality control (oxcarts, grains mills) caused insurmountable disagreement⁸. At Autogeneración, the conflict concerned the quality of the data (the basis of the feasibility studies to be conducted) that the Mexican experts got from engineers in the plants. The Mexicans could not reproduce the technical discourse of the foreigners to explain the data, nor could the latter recognize the efforts made by the Mexican experts to work with the data. But both of these technological explanations do not recognize the underlying ideological operations that rendered these differences debilitating. Such surface conflicts would have been easily resolved, as the foreigners in both projects were aware of the novelty of the technology. However, below the surface of explicit expressions they could not seize the cultural reinterpretation necessary by the Mexican experts to share their criteria for "quality" and/or the significance of the various data. The local experts recognized the technical

⁷ We will discuss the Mexican myth surrounding Malinche, a symbol of cultural betrayal, below.

⁸ The foreigners in Appui Technique, who accepted the economic constraints that led the buyers to insist on the lowest possible prices, were paradoxically liberated by the absence of quality control which gave

arguments, but they did not distinguish a will to dominate from the exigencies of the foreigners' professions in France and the US. The ideological operations born of the one's gaze upon the other produced an interface between foreigners and locals. What appeared to be misunderstandings, were actually disagreements over the meaning of the knowledge exchanged. Consequently, we must first study the meaning assumed on either side of the interface and then study how the lived experience of the encounter was reinvested by the actors.

3.1.1 Foreign Actors

While there are individual differences, all foreigners shared an ideal-type of handling cultural distance and the local experts shared another ideal-type⁹. The foreigners of Autogeneración were developers exhibiting the will of the energizer, for modernisation and for progress. In the terms of this project, the will of the protagonist which was brought out by their encounter with the local experts. The professional identity of the developer is ultimately defined in the field. The incoherence that they perceived in the Mexicans' reasoning reinforced their professional identity and determined their understanding of their interaction. But, the foreigner is an expert before beginning his/her mission in the target country. Their expertise is acquired and is not changed, adapted or influenced by the various contexts in which they work. In this sense, we can say that the foreigners in Autogeneración were first experts and then developers. Whereas the foreigners in Chad were developers first¹⁰. Critical distance from development aid, which

them the leverage to redefine their interventions whenever they lost sight of their initial goals: "*c'est quand même pas une raison pour faire n'importe quoi !*"

⁹These ideal-types are reinforced by the project design process (the IBRD "project cycle").

Development agencies produce Terms of Reference (TOR) that leave the experts a margin of definition of their work, which these use, knowing the agency's political constraints, to justify techno-logically the disparities between industrialized nations and countries said to be developing. Experts excel in allowing leeway in this definition to entertain the local conditions in the target society that give substance to a project. The developers are then expected to account for the particularities of the target country in their practice. What the design process excludes subsequently traps the developers during the implementation. "... personal experience, political commitment and technical training ... coalesce to form a specific development discourse in which individuals think", (Kaufmann 1997:129).

¹⁰GRET, the NGO implementing Appui Technique, does little work in France, and so their experts gain their expertise on their missions. This was not the case for Hagler, Bailly, the consulting company

experts inevitably experience, constitutes a vital aspect of the practice of technical assistance. Institutional demand in industrialized nations creates the coherence of "expertise." The case studies show to what extent individual experts vary despite their institutional definition.

Central to the life-world of the foreign expert is the rift between the reality of technical assistance and the moral anchorage they can construct for themselves. In both case studies, the cultural distance lived and suffered by the foreigners was transformed into protagonism. Their alienation from the local actors fed their determination to continue.

John¹¹ had been working outside of the US since 1982. After each engagement, he affirmed that the challenge of the journeys and the encounters with other cultures excited him so that he would not return home. He claimed to have hated his local colleagues in Egypt and Pakistan (his recent assignments) but he learned to read and write in classical Arabic and Urdu. The better he knew what to expect from the local culture, the more readily he found references that permitted him to mark his cultural distance. Learning the local languages was one example. Martin¹² noted with pleasure that he had almost lived longer in Africa than in France. It had become a challenge for him to continue despite the frustration he felt toward aid and assistance agencies. He charged the agencies with the loss of integrity and accused them of forcing experts to spend their time fostering their careers rather than improving as developers by reflecting on their practical experiences.

Martin: ***"me, I'm not here to make blabla, I'm here to work and that's all, I say Chad, I don't know it, hmm, I'm not like those who come here for 6 weeks, go back to Europe, read 4 books and then make sense of it all; me, I have***

implementing Autogeneración. In the field, the foreigners were able to take distance from the institutional discourse. In their home countries, knowledge of third-world reality was an asset, a capacity. In the field, it became a hardship.

11¹¹ John had a M.Sc. in mechanical engineering from UCLA, was 38 years old and single. He spent three years with an energy consulting company in Boston, then took an assignment for three years in El Salvador and had joined Hagler, Bailly nine years before Autogeneración. In the beginning he was meant to be a technical resource person. After the first months, the director of the Mexican Agency expressed his dissatisfaction with the progress made and John became head of the team of US experts. Until the end of Autogeneración he remained the dominating foreigner. Today he manages much larger international energy efficiency programmes, altogether a rather successful engineering career. He has married and has one daughter.

12¹² Martin was a certified technician and started in public works in France. He remembered having seen high-chairs for the administrators during the last colonial days. Most of his career was dedicated to appropriate technology development, first in Zaïre, then for six years in Burkina Faso (for the ILO) and later in many other West African countries. He supervised and designed projects for a two well-known French development NGOs (full of 'soixantehuitards', he said) before joining GRET, where he had designed Appui Technique. Acting as a coordinator at GRET's central offices, he spent about six months in Chad, assisting the project director, Jacques. His wife and their two daughters had accompanied him for many years but he went alone to N'Djaména.

been coming to Chad since 1989, I say I don't know it and I don't have time to get to know it, that's it ! So now, guillotine me !", interview, 16/12/91

Martin lamented the constraints that his professional cadre placed upon him; namely, to direct all of his energies towards the practical operation of the project itself rather than his local colleagues' competence. Questioning the nature of his actions was an act of inquisition. In this way, his role of professional developer became the sole motivation for him.

If a foreigner could succeed in understanding the local perspective, his/her protagonism would disappear because it is a function of the foreigner's alienation from the target culture. Dismantling cultural distance in order to enter the life-world of the local actor would permit a restructuring of the developers protagonism based on the local actor. However, such an appropriation of the local perspective is impossible as it signifies an elimination of the very cultural distance upon which the foreigner's justification as a subject, as a developer, is based¹³.

Martin was an effective expert, a professional, but wanted to be a developer and a volunteer. He rejected the very idea of reaching the local actor. His job was to convey methods of organization, management analysis, etc., to countries and peoples in need of this technology. John learned Spanish, the language of "***los braseros***" (migrant workers) in his native California only because he considered it a language of importance in a "***world sense***". The global and privileged point of view underlying these statements motivated both experts to seek a mission for modernisation and development. The cultural distance brought to the target country and reconfigured with local experts, produces this expert privilege point of view. The operations that construct a foreigner as an expert give a coherence to the development experience that transcends the historical context of a given project and the individual's response to this environment.

If we define "efficiency" as a foreigner's ability to explain his/her knowledge, Pascal was more efficient than Martin or Jacques. He was also a better expert because he was able to construct his own cultural distance through his devout Christianity. John was a better expert than Jim or Joe (of Peruvian and Argentinean origin) because he, too, easily constructed his cultural distance. The link between subjectivity, expertise, and otherness was constitutive of the developers identity, an identity manifested overtly in their life stories, and implicitly expressed in their professional practice.

3.1.2 Local Actors

We now turn to the local actors and start with the Chadians in Appui Technique. The local experts lived a corresponding experience: 'I do not accept this other, but I will conform myself to the other'; 'I will do as the foreigner without becoming foreign'. The symbolism of foreignness took very different forms in the two contexts. However, the local actors in both Chad and Mexico pursued their symbolic work of discovering, and distinguishing themselves from, what constituted the local for the foreigner. The logic of their work was similar. The differences among the local actors were the expression of the relative success of their symbolic constructions.

Mohammad¹⁴ requested the most technical knowledge, as it was technical and available to him in Chad. The origin of the knowledge was unimportant to him. Everything manufactured in Appui Technique, all technical reasoning, interested and motivated him. Mohammad considered my research an honour to his profession and exploited my presence frequently in front of the other artisans. If he had known how to write, he would have taken many notes while manufacturing prototypes together with the experts.

13¹³If technical assistance is a self-sufficient exercise, it is here, where the empty practice is being reproduced.

14¹⁴While his family came from a well-known, Northern, nomadic ethnic group, Mohammad grew up in Sarh in Southern Chad. His father, a merchant, was killed at the beginning of the civil war and he fled with his mother to N'Djaména. At the age of 12 and without formal education, he started to work in a garage. By the time he was 20, he moved to a machine shop and achieved recognition for his craftsmanship after four years. At the beginning of Appui Technique, he had been an independent artisan ("*un patron*") for two years. This micro-enterprise employed six workers and had allowed him to build a large house and bring his extended family back together. He had two wives and no children.

15Altogether 40 artisans participated in Appui Technique at various times. The skill acquisition over a long period and finally the big investment of buying one's own machinery is a core thread of most individual life histories of these artisans. Another common element was a period of one or two years as a refugee in Nigeria.

Osama¹⁵, on the other hand, rejected the knowledge he labelled foreign because to him it represented a form of Western domination. The implementation of Appui Technique confirmed his fear and increased his determination not to be re-colonized. The first day of work, Osama brought a notebook but found nothing the experts discussed worthy of being written down. Significantly, though, he enjoyed my interviews with him. I came to his home, sat on the living-room carpet and ate a West African meal. As the interview progressed, Osama acknowledged with increasing insistence that the experts' knowledge would benefit the artisans¹⁶. His curiously favourable reception of the interview process was no doubt due to the slant of my questions which encouraged the comparison between the local experts and the foreigners. However, in the workshop where artisans, Chadian experts and foreigners built machines, everything changed. Having been to France, unlike his artisan colleagues, Osama could not disembodify the technical knowledge of its Frenchness¹⁷. His relationship to the project was vexed. He had difficulty working because he refused to participate in the transfer of knowledge and became defensive about his own approach to the work as an artisan.

Just as the subjective evidence of cultural distance helped John to operate better than Joe or Jim (who grew up in Latin American countries), the cultural distance helped Mohammad to use the encounter better than Osama, who had been to France and for whom the foreigners were less unknown. The subjective evidence was determined independently of the obvious conditions such as Osama and Mohammad being Black Africans and the foreigners White and French. No such obvious differences existed between John and the Mexicans. Nonetheless, the symbolic constructions were always much more complicated when an actor knew more about the foreignness.

16¹⁵ Osama had moved to N'Djaména at the age of 14 from Abéché, in Eastern Chad, looking for professional opportunities. His schooling was better than most other artisans and he wrote Arabic and French well. He had also travelled in Europe for six months. He had decided to stay in Germany, but his money ran out before he could learn German. With his close friend Rahman, he now ran a small workshop since eight years. Due to their technical competence, they made more profit than most others. He was married and had four children, and his house had distinct features of a modern Islamic middle class home.

17¹⁶ He noted with satisfaction that his five month old daughter, who had fallen asleep on a cushion next to me, was not afraid of me even though I was the first white man she saw. He mimicked my ethnological method and recorded our conversation on his tape recorder with a tape that I had given him. This interview is used again to identify management goals appropriate to the implementation of Appui Technique (Ch.6.2).

18¹⁷ Ngerbo, another artisan, said of Osama, "*that one is the complicated one*". For three weeks, Ngerbo helped Osama to work on a prototype of a grain mill, without ever reacting to Osama's grumbling.

In Autogeneración, the various responses to the foreigners were similar to those in Appui Technique, especially in their individuality. Miguel¹⁸ and Ramón¹⁹ came into direct conflict with the Gringo (a label often used for all non-Latinos). The foreigners were especially attentive to the two of them, as they were deeply engaged in the project and therefore offered the foreigners the best opportunity to make contact and progress in their work on the feasibility studies. The irony was that the foreigners placed their confidence in the very Mexicans whose work produced the fewest results. That much deeper was the frustration of the foreigners. Several months later, the foreigners risked their professional relationship with the Mexicans by asking Miguel and Ramón to resign from Autogeneración. Having been sacked indirectly²⁰, neither Miguel nor Ramón could express themselves to the other Mexican experts, nor did these want to find out what happened to their colleagues. The symbolic work being so individual, it kept the Mexicans from talking about their experience or their intentions.

Three months later I met Miguel for the first time since his forced resignation. During our talk, he made indirect reference to his experience in Autogeneración in a story about a recent moment of reflection. While strolling from his new office, in a Spanish firm, to the monument to Mexico's independence, "El Angel de la Independencia", that stands nearby²¹ he suddenly asked himself:

"Why am I working here for a Spanish company ?"

That is where his story ended, as he could say no more. The wound from his dismissal, although evident in his attitude, went unspoken. I took his silence as an indication of his will to overcome his pain. Nonetheless, his complex desire to assimilate, to become, the foreigner remained. He was proud to show me the business card that Bill had given him before he left. Finally, he explained that his children teased him because he had begun to assimilate the Catalan accent of his new employer. The other (foreigner and Conquistador),

19¹⁸Miguel had an M.Sc. in electrical engineering from the Mexican Polytechnic. He had spent 16 years in the utility company (Comisión Federal de Electricidad, CFE) and four years with ABB Mexico building a local research unit before joining Autogeneración as Mexican project head. He was 45 years old, married and had three children.

20¹⁹Ramón had an M.Sc. in electrical engineering from the Universidad Nacional Autónoma de México (UNAM). After graduating he joined small consulting firm, run by the son of a former CFE president. He was 27 and single.

21²⁰While Mexicans and foreigners had equal status and nobody could give orders, John, Jim and David could, to a limited extent, use their superior engineering knowledge to oblige the others to take certain decisions.

22²¹Miguel had been in the process of writing a fax when I arrived. He held a ruler over the paper to write in straight lines. He had learned this trick from a German engineer, he said. It was one of the few aspects of foreign knowledge that he was able to appropriate. Upon leaving he invited me to visit his home, in a manner that I would not be able to do so. He saw my research efforts similar to his efforts to achieve professional independence: *"me gusta mucho como tu tratas de superarte en tu trabajo"*.

"*se me pega*" (gets under my skin), he joked.

José's²² experience was completely different. His twenty year career in power plant construction helped him take charge of one cogeneration feasibility study in Autogeneración, quickly improving the detail in the calculations. Interestingly, he was keen also to learn from me; one with no practical engineering experience who had learned from engineering manuals. And he certainly realized this even if I never said so. In our second interview, towards the end of the project, he thanked me for having been able to:

"*help the seeds grow.*"

Proud to participate in a professional experience in which: "*we learned who we are*", he felt that working with foreigners enabled him to confirm his Mexican identity. Clearly the same foreign contribution that enabled José, prevented Miguel and Ramón from affirming their identities. The symbolic distance from the Gringo (the US-american, despite the various nationalities of the foreigners, and the Conquistador) that the local experts experienced had one of at least two effects on them. On the one hand, the distance could turn them in on themselves and reaffirm Mexican identity as their own--what they knew and what they loved. On the other hand, it could be projected negatively onto the foreigner as evidence of his/her imperialistic tendencies. About the negotiation of the distance that separated them from their foreign colleagues, the Mexican experts took opposing stances and this rendered all communication about the project difficult. In fact, they never talked about Autogeneración amongst themselves. Handling these foreign experts was a question so intimate that they could not share it, everybody had to see for him/herself.

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In Autogeneración as well as Appui Technique, the actors' ways of coping with the encounter were finally not so different. The local actors in each case approached the encounter with an intuitive sense of the other's foreignness. Their distance from this other was the given to which they were called to react in order to define their own positions as students of the foreign knowledge or protectors of local integrity. The intensity of this symbolic work, confirming their identity (Mohammad and Rahman in Chad, and José and María in Mexico) or suffering the oppression of their identity (Osama in Chad, and Miguel and Ramón in Mexico), was fundamentally constitutive of the complex local attitude towards the projects. Cultural distance

²³²²José was a mechanical engineer, graduated from the Polytechnic. He spent 20 years in a large steel mill and had acquired a wide reputation for his design of plant water treatment and steam systems, which allowed him to work as an independent consultant. He was 46 years old, married and had three children.

to the foreigner was an opportunity or a menace, made him attractive or repulsive. The symbolic forms appearing in Chad resembled those in Mexico. But the symbolic form in one context can not be reduced to the equivalent form in the other context. These forms are systemic phenomena, but they are not part of the same system, as we will show looking at the dimensions of developer / developpee encounters (section 6.1).

It is possible to conceive of a project of aid and assistance itself as an optic, that is, a frame that permits an analysis because it follows the limits of the actors' symbolic constructions of an encounter. For this reason a developer/developpee encounter can be analysed using the events of one project. Irrespectively of the fact that it is a planning unit for the development agency, a project is a viable anthropological objects. Seen from outside the frame, the efforts of the actors appear incoherent. The subjectivity of each actor becomes visible only when a reconstruction of the inside of this frame (completed in sections 4.1 and 4.2) delimits the scope of its definition and provides the optic for its discovery. By beginning within and moving outside of the frame, or micro-social space, the links between the subjective realities of the actors become clearer, giving their identities more substance. The foreigners were not all the same kind of developer, nor the locals actors the same developpees. The point of this study is not to construct a rigid topology. The resemblance of these encounters is an indicator for an anthropological condition of being in the world today. In response to the question posed above regarding the object of study, we can say that a project of aid and assistance is a viable object. This also allow us to study the exchanges between the actors of a project as an autonomous field of communication with a degree of independence from the context.

It is further a very particular field because the stabilised symbolic exchanges that take place are generally unsatisfying to the actors involved. The obstacles that they encounter are the result of insufficient communication and insufficient socially shared meaning available. While the imagined other in Autogeneración and Appui Technique was always invoked by the actors to explain the foreigner or local actor present, most knew that for example the 'Gringo' image was too simplistic. The symbolic work attempted filled the absence of social meaning through which to interpret the encounter. Developers' life histories are chains of encounters with developpees, where the building blocks of the life histories are leftovers of unsuccessful interpretations from both sides. The dynamics of the exchanges within a project is determined by the symbolic economy of these life histories.

So far, we can say that what was at stake for the actors were their personal and professional identities. Their interpretative horizon was far beyond the project itself but their reasoning failed to understand it. Accordingly, two elements of the project dynamics can be pursued further.

First, how much the subjective judgement of previous developer/developpee encounters has been changing for an actor and second, how far they were able to make their professional conditions at home transparent their colleagues abroad and vice versa. We will return to this in Chapter 5, when we study the latent processes driving the events. Here, we announced this to appreciate the participant observation and we can now determine how the actors manipulated my presence to change the events.

3.2 The Position of an Observer and the Effects of Observer Presence

How did my presence function like a hole in the ideological pressure cooker ? Visibly, I was recording the events by taking notes and taping meetings. Not knowing what I was looking for myself, the actors interpreted my interest according to their understanding of the events. Some actors discovered that my pretended (and certainly relative) neutrality was useful for them to influence the events through rhetoric assertions. The first question to ask is, given my background and access conditions to participate (assessed in section 2.2), to what extent was I able to aspire to remain neutral ?

My participation in Appui Technique was possible because GRET was interested in my experience as a mechanic and an engineer. This interest is reflected in an article about my work in their journal (see Annex 1, and note 38). Notably "*Apprendre, c'est observer*" shows that GRET used my results to claim comprehension of knowledge transmission in the Chadian informal sector. In Autogeneración, I was hired as a consultant to Hagler, Bailly, Inc., who saw an opportunity to increase my marketability as an expert--a marketability from which they hoped to profit in the future. These interests had much more of an impact on my participation than, for example, the fact that I was paid to participate in Autogeneración, whereas I financed my participation in Appui Technique myself. Perhaps more important projects, those that involve high economic stakes, are neither accessible because of a biased use of the results in a journal, nor the need to secure consultant personnel, but only in view of the other strategic objectives motivating development agencies; objectives that the results of the researcher would validate. The reinterpretation and use of results cannot, therefore, be taken as a strong

indication of their quality. Although it is often necessary, use of the data does not, in and of itself, indicate their scientific value or justification. Reflecting on the quality of the observer's results, one might ask, are they applicable or not? To whom and in the name of whom are they useful? For us, the reception of the observer during the participation, why and how I participated, is more important.

If we can say that an observer becomes a kind of pawn for the actors, there are three principle ways they can use him/her: the local actors can use an observer to reinforce or to reduce the cultural distance of the foreigner and the technology, and the foreigners can use an observer to overcome their alienation from the local context. These tactics were always executed indirectly by verbal allusion to my presence. A reference that would permit the actor to announce publicly an opinion about my observing. In order for the tactic to be effective, it was important that the actors seize an opportunity to make a comment in the course of everyday interaction, as if it were a perfectly natural occurrence, not a staged announcement. Due to the spontaneous nature²³ of the comments, they reveal something about the exchanges. Their use of my presence enacted new parts of the project scenario. I encouraged this by answering every reference to myself as passively as possible while responding to the direct content proposed. My note-taking always remained unspecific²⁴. While I encouraged the use of my presence (the pawn's versatility), I did not create it in the first place. Such a role is determined by the project scenario, the observer fills a predefined position.

Accordingly, my presence in Autogeneración went beyond my participation as an engineering expert. When I was present, for example, the Mexican experts criticized the Mexican government. Since the observation put the project, defined by the government, into question, they felt a need to distance themselves from it; hence, the recurrent theme of Malinchismo that surfaced in the interviews²⁵. The close attention paid to the actors, the microphone of my

24²³This will be explored in the chapter on communication structures (5.4).

25²⁴Having participated in the exchanges between foreign and local actors, I had to ask only simple questions in the beginning of an interview for the interviewee to return to these exchanges and pursue what he or she had tried to get at.

26²⁵According to popular Mexican myth, Malinche was so devoted to Hernan Cortès that she betrayed her people. The alliance (a "Realpolitik") of several indigenous peoples with the Conquistadors against the Aztecs seems to be another matter for contemporary Mexicans. The historical Malinche herself remains a fairly obscure figure, but the mythology of her betrayal has passed into common language as an insult, "*Malinchismo*", levelled at someone who has taken the part of the foreigners against the people of Mexico (Paz 1961:86, Nunez 1996, Cypess 1991, Todorov 1984). Malinche has also been studied as a historical mother as source of ethnic identity healing of oppressed people. But since the 1940s the term is predominantly pejorative: "malinchistas - los verdaderos hijos de la Malinche, que es la Chingada en persona", "the strange permanence of Cortès and La Malinche in the Mexican's imagination and sensibilities reveals that they are something more than historical figures: they are symbols of a secret conflict that we have still not resolved", (*op.cit.*:87). See note 23, p.178.

recorder, the careful note-taking were services offered to the foreigners as well as the Mexicans, and, therefore, constituted a common experience for all. Ramón, the Mexican expert who had the most difficulty with the differences between the foreigners and the Mexicans was able to use my presence as a means of understanding the encounter. Entering his office at 6 pm, I asked him for an interview and he replied directly:

"I tell you straight away, I don't like the Gringos, but I like their money !"

Once I had suggested it, he wanted to do the interview right away. That evening we sat in his office until 11 pm, long after all others had left. Following the work in Autogeneración, my observer position allowed him to express this attitude (towards working with foreigners). The next day, he asked me in front of the other experts:

Ramón: ***"Can we interview you ?"***

Observer: ***"Certainly, with pleasure"***

Ramón: ***"But seriously, there is something about your way of thinking that I don't yet understand, I would like to understand you"***

Observer: ***"O.K."***

He thereby signaled to his colleagues that an interview was an opportunity to communicate something about the relations between Mexicans and foreigners. No other remark or comment preceded or followed this signaling. The foreigner most conscious of the fact that their cultural differences were an obstacle to their work as a team also used my ambiguous status to close the cultural gap. Two days after the previous exchange took place, John announced suddenly before the other experts present: ***"Tom hasn't interviewed me, but has the others. I certainly hope he will interview me one day !"***

The interviews were seen as an effort to take seriously the team's difficulties and, thereby, to render them less debilitating. The majority of the experts were glad to be interviewed. Often, these were long monologues late into the night in the living room of the house I shared. Their appreciation of my presence differed according to how serious they took my research. My method did not call into question the role of the developer in Mexico, which made my presence less threatening to the foreigners. My neutrality and the attention that I paid to what the foreigners called the "*caprices*" of their Mexican colleagues, were important for the Mexicans. While for the foreigners I was part of those who suffered from the "*caprices*", I distinguished myself from them as the foreigner who acknowledged the difficulties that the actors faced. Thus, I enjoyed a privileged position of a trustworthy interlocutor vis-à-vis the Mexican experts. The position accorded to me by the actors on both projects was generally a function of my usefulness according to the stakes involved. However, we can say that their interest in me stopped short of the strategic threshold in Autogeneración, as there was nothing that they wanted me to help them accomplish. Foreign and local actors supposed that I understood the

other better, but my insights were not immediately useful. These were rather satisfying or comforting but not useful for a specific purpose. In Appui Technique, their interest crossed the strategic threshold. To make reference to my note-taking and my microphone during meetings was to intervene directly in the unfolding of the project²⁶. Even those actors who tried to manipulate me in ways that seemed to run counter to the project's objectives, can be said to have benefited from my presence. Martin, for example, used me as his informant in a crisis; Mondai, as a confidant to express his need for technical help (which he hid from the other artisans); Ngerbo, as a cover so that he could hide his damaged tools; and Tahem (the one Chadian expert who, as an administrator, had no knowledge of the technology), as a mediator to give the others the impression that he could communicate with the artisans. More important, though, was the way the actors were able to make sense of their own experience thanks to my presence.

The discussions with the French and the Chadians were more closely conducted than those with the U.S. experts and the Mexicans because in Appui Technique, I was used more strategically. I was received by the actors as an expert during the interviews. Thus, a free and open exchange about the events was impossible. The dialogue turned on our capacity to distance ourselves from the events and, thereby, to assume a position of witness vis-à-vis our own experience. Chadians and French presented their viewpoints as if they understood their relations. Such a constraint necessarily produced a particular mode of response in the interviews. The French as well as the Chadian experts also avoided abstractions (of the foreigner, the foreign developer, the big brother, the savage) and referred to with concrete evidence. Neither their understanding nor the evidence were coherent and so sometimes they stumbled from one contradiction to another.

It also came out in the interviews that for the Chadians, my presence was a reminder of their conflicts. I was still a Nasarra²⁷ who came seeking knowledge about Chadians. The artisans did not distinguish between a volunteer, a doctoral candidate, a researcher from IRD²⁸ or a consultant working for the U.N., all of whom represented to them neo-colonial foreign interests.

²⁷²⁶To avoid changing the project dynamics, I conducted all interviews during the last ten days of my presence. This precaution was an overreaction due to my fieldwork stress.

²⁸²⁷"Nasarra" is the local label for White. It is used in many countries in Western Africa and the term comes from the Quoran, where it denotes Christians. Nasarra also refers to the White domination during the colonial period. Labelling an act as "Nasarra" (like an adjective) denotes it as culturally superior and potentially dangerous. Decolonisation as a cultural process is reflected in the semantic evolution of the term Nasarra.

²⁹²⁸Institut de Recherche pour le Développement (former ORSTOM), the French national research institute for developing countries. Working predominantly in former French colonies, it comprises over 800 researchers.

Nonetheless, my interest in their culture and their perspective on the assistance distinguished me to some extent and gave me a privileged status. The following exchange is a typical example for this status. Again, it was enacted like a natural occurrence during the normal work on the prototypes between experts and artisans.

One artisan proclaimed an intensification of the exchanges by publicly requesting in Arabic that I go and find a piece of steel profile:

"Thomas, chouf masura".

In order to proceed with the manufacturing, it was necessary to cut a piece of steel profile.

When I failed to locate such a piece, returned to the group and announced in French:

"We don't have any",

this artisan applauded, commenting in French (to make sure that the rhetoric is shared between foreigners and Chadians) towards the other artisans:

"You see, he understands !"

He then used another type of profile to continue. I had been part of his way to proceed in his work. The other artisans were most impressed by this display of complicity, as they had been convinced that as a foreigner I would not respond to a request in Arabic (or in one of the many local languages). My comprehension of Arabic proclaimed my intention to enter into a relationship of reciprocity with the artisans, and caused them to redefine their relationship to me. My vocabulary of some 50 words was evident to everybody and I could not follow a real conversation. What the act of translating symbolises was much more important than the content of a translation.

Over the course of the next few days, I was frequently sought out by the Chadians. Often they tested questions on me before approaching other foreigners. Several of the artisans invited me to dine at their homes and meet their families (or, occasionally, their second wives)²⁹. I was also a cultural representative for those who turned to me to discuss different aspects of French presence in Chad or the prospects (salary, etc.) for a welder in France. They invested me, a Nasarra, with power which helped them construct their image of the foreigner. They could use me to situate themselves for, or against, the experience in Chad by allowing me to bridge or to reinforce the distance between the artisans and the foreigners. For all except one of the artisans (Mohammad) I provided the necessary buffer to prevent them from having to form links with the foreign experts directly.

³⁰²⁹ Interestingly, a few days later, Osama refused to tell me the name of the street he lived on. This demonstrates to what extent the encounter with me remained cultural and was not in any way indicative of real personal interest in me.

For the French, my presence was a "**driving force that helped bring people together**". They appreciated my ability to help them define certain elements of the local reality of the project. My technical credibility lent a familiar flavour to the 'local character' and, therefore, rendered it more acceptable to them. They asked for my opinion when it was useful although they generally regarded my research and, in particular, my complicity with the local actors, as a nuisance.

The foreigners had exiled all non-technical local custom to a stigmatized sphere of indifference where they would not be forced to confront it. The mere presence of an observer, even with a very limited capacity to translate and approach the local actors, provoked this confrontation and encouraged the French to enrich their perception of the Chadians. On the other hand, Pascal and Jacques considered odd the very idea that a foreigner should be interviewed. Personal reflections, they reasoned, were irrelevant to their neutral technical perception of the project. Pascal found my research naive because he was of the mind that voluntary help needed no interrogation, nor did it inspire serious reflection. The link I provided between the technical aspirations of the French and the local reality nonetheless led Pascal to attribute a benevolence to my interest. Though there was a general dismissal of the interview process on the part of the French, my personality sometimes worked against this rejection. Jacques understood when I alluded to the local perspective, so much so that he told Martin he had "**confessed**" in his interview. As it was, Jacques' resistance to the interview process was also moral-- I could not be implicated in our discussion in the same way as him, given my ambiguous status on the project.

The Chadian experts were more passive in the exchanges with the foreigners than the artisans since they followed with awe the project dynamics, they perceived the symbolic work better than anybody else. Little by little, they realized that my work actually constituted a pertinent interrogation of the project, a fact they had previously failed to grasp. Until that realization, they had simply shared the artisans' assessment of my presence and considered collaboration with the foreigners beyond their limits. Dambai, one of the local experts, was delighted by the way the artisans related to the observer. He reasoned:

"They take you as you are and this gain of their trust was really automatic. When you took notes, there were some who did not even worry about what you were writing. So, for me, this confidence no one was intrigued by your note-taking, by whatever you were in the process of doing. I think the exchange certainly helped bring people closer together very positive and less mistrust", interview

He found my presence useful for them and perfectly in keeping with his own efforts to achieve a better understanding between the French experts and the artisans. He was amazed that I

should want his interviews to enter into the general discussion in Appui Technique. His experience with foreign experts had convinced him that criticizing technical assistance projects was categorically impossible. His colleague Tahem noted, however, that as an expert he had always considered my interviews in his reflection on the project. In his effort to be as much of an expert as the French, he endeavoured to be as administrative as Jacques, and as perceptive as an ethnologist.

The attitudes of the actors towards me in Appui Technique can thus be described as both rich and complex. My research helped the actors understand their own communication and the symbolic forces that organized it. In Mexico, on the other hand, my social role was more limited. The main reason for this limitation was probably the lack of contact between the beneficiaries of Autogeneración, that is, the engineers in the factories of heavy industry, and the foreign experts³⁰. The lack of personal contact in Autogeneración actually made it easier for the actors to talk candidly about their experience. Consequently, the analysis of this project relies more heavily on the actors' reflections in the interviews.

If we can describe the role I was made to play in Appui Technique as both passive and active (in the sense that they exploited my presence), in Autogeneración, it was purely passive. The U.S. experts recognized that my presence offered an exceptional opportunity to reflect on the respective difficulties they had working with their Mexican colleagues. They did not use me or make reference to my work in office meetings as did the French in Chad, but considered my reflections useful to everyone. In the process of their interviews, the artisans (especially Osama, Rahman, and Mohammad), for their part, made discoveries and reinterpreted their experience on the project based on them. They began to announce publicly what they had been unable to express at all. To a lesser degree, the Mexican engineers had the same experience.

In summary, we can say that an observer (the presence and the personality) had a substantial influence on the relationships between foreign and local actors in both projects. Some artisans were able to rethink their reception of, and relationship to, the foreigners, as well as their own self-image as actors. The foreigners felt the effects of this symbolic work taking place because of my presence. The observer position helped all actors to see the attempts made on the part of some to bridge the cultural gap with communication. However, most were too implicated in the process to participate more actively in it. Obviously, the ideological stakes for the actors

31³⁰In Chad, personal contact rendered the lived experience more violent, and the symbolic work (which, thus, becomes more intensive), more strongly expressed. In Mexico, visits to plants (always by one foreign and one Mexican expert) were rare events. A visit produced enough data for weeks of work for them.

allowed participant observation to produce ethnographic results. The interpretation of both projects is feasible, the events intelligible. More importantly, the participant observation can be defined for both despite the differences. The social, economic, political and technological contexts could hardly be more different, nonetheless, there were commonalities of my participant observation which allow us to conclude now on ethnographic fieldwork in technical assistance in general.

The failure of technical assistance is the point of entry for the observer and it defines his/her subsequent position. The failure reflects the distance between the discourse of development and the possibility of putting it into practice. The breakdown between theory and practice, which produces the conditions in which the observer as a project participant can become a pawn for the actors, is the result of an historical legacy of domination inherited by foreigners despite their desire to get beyond it. The attention paid to the observer as a virtual participant who endeavours to understand the social processes at work, appears at least to offer the means of repairing this breakdown. Consequently, the observer becomes the sounding board for both sides to express their explanations for the failure.

The local actors in both of the projects expressed to the observer that blame for the failure should fall on the foreigners. The foreigners, for their part, verbally distanced themselves from the image of the developer who only did "projects" and failed to engage in real human contact. The observer position was finally not defined by the goal of technical modernisation, but rather by the effort on the part of a post-colonial subject to become a successful recipient of assistance. Although it would be presumptuous to suggest that the failure to assist is necessary for the redefinition of the local actor, I have observed that in the case of such a failure, the post-colonial subject can be liberated by expressing his/her views on the project of assistance. Whereas for the foreigners the failure to assist determines the observer position, for local actors, who have watched their country stagnate, or at worst, degenerate since the moment of their independence, the inevitable failure of assistance is only indirectly responsible for their reception of the observer on the site. Their use of the observer as a foreigner and sympathiser is also clearly a function of their need to express their cultural pain to those they believe have inflicted it.

While technical competence was a precondition to get access to these events, it is irrelevant for the observer position. Actually, less technical competence would have reinforced my position because my answers would have been more naive. The observer becomes a pawn the more the observer remains neutral between the foreigner's and the local's rhetoric efforts. The absence of conflictive interests allows an actor to use the pawn for mediation.

Having been positively present (symbolically effective), an observer allows the actors to express what they cannot express in front of other actors. The pressure in the pressure cooker originates in the colonial past and in the failure of technical assistance, but the pressure is also maintained by the fear to express oneself. This fear reflects the very self-esteem of an individual, the intimate professional identity. The observer's passiveness reduces this fear. When the developer/developpee encounter has symbolic importance for social identity formation, for example by posing the challenge to the Chadian actors to acquire the power of developmental knowledge from the former colonizer, the observer position approaches that of a coach or mentor. An observer brings nothing to such a position but attention.

The observer position provides some transparency to the encounter and allows to separate wider social processes from the tacit rules of development agencies. Later on, we will see that this observer position was reinforced by the interface between foreign and local actors. The interface was produced by the actors' efforts to change their encounter. The more turbulent the interface, the stronger the observer position. The manipulation of my position by the actors will be the key to define management goals in section 6.2. Looking closer at the interviews of Osama (Chad) and Ramón (Mexico), we will see how these actors used my position to increase the permeability of the interface for technical knowledge. This will allow a definition of how a more lucid and thoughtful usage of the symbolic matter of the projects would have been possible³¹. The management goals identified follow what these actors attempted to achieve by manipulating my position. Because their manipulation is central to the analysis³², we will now review how the actors saw my position in hindsight.

3.3 Responses to the Results by the Actors and Development Agencies

We have concluded that the New Directions phase in U.S.-AID allowed to explore development anthropology in agriculture and health, but that the reception of the results was arbitrary and not

³²³¹To the extent the encounter between foreign and local actors is an ethnological experiment, the observer responds to an unspoken need and fills an unnamed, but inevitable position. In this sense, the observer has immediate access to the exchanges and participates wholly in them.

³³³²Further examples are analysed in Chapter 5.4, pp.138-141.

logically consequential. Insufficient analysis of the research conditions left isolated results. Accordingly, new development paradigms have not been examined for respective objects of study. Keeping the position of an observer in mind, we now clarify development agencies' responses to the results of this study. These responses are specific to the fieldwork approach and to technical assistance to industry.

During project implementation, the observations were palpable and became a latent part of the actors' reality. Writing up after the fieldwork produces explicit results. In this form, the results could lead to lawsuits and conflict but I am still on good terms with all actors. To an extent, this is a confirmation of my analysis of both projects. Irrespectively, the actors' responses to the results furthers the analysis. Based on the responses of both the actors of Appui Technique and Autogeneración, it seems that no analytic interpretation can erase the effects of the interface, or its symbolic power to construct identity. The response by development agencies who designed the projects is another matter. We start with the actors of Autogeneración.

3.3.1 Actors' Responses

María³³ expressed relief and satisfaction upon reading a full monograph (150p., now section 4.2)³⁴ on Autogeneración. But she was unable to resolve her contradictory opinion about Autogeneración. She maintained that the foreigners dominated the Mexicans in a way that was not in the foreigners' interests. She recognized the necessity of understanding the encounter during the implementation and that with hindsight the encounter appeared even more

34³³Three years before Autogeneración, she had finished her M.Sc. in chemical engineering from UNAM. After one frustrating year in a nationalised chemical plant, she had joined a dynamic Mexican consulting company. After Autogeneración, she moved on to another one, where she works today on electric systems in mining. She is still single, and wants to get a PhD.

35³⁴I visited her one year after the end of Autogeneración in her office in Mexico City. Her comments on details of the results showed she had read it closely. For example, she had found all citations where foreigners talked about Mexican women. I didn't tape this conversation to mark the end of the research. I encouraged her to explain the results to Ramón but he subsequently avoided meeting me while making one appointment after the other. This behaviour could reflect that during his interviews (where he had explained he wanted to earn income with the Gringos), he had misinterpreted his part in Autogeneración. Meeting me again would have meant admitting that his professional rationale had been erroneous.

contradictory. She was unable to move beyond the image in which the Mexicans enclosed the foreigners and use my results to interpret her own experience. The comfort she felt when reading the monograph came from the confirmation that the difficulties had not been her individual mistakes. She read that the foreigners had been dishonest and manipulative. But she was also certain that the reason why Autogeneración had not succeeded was that John had not sufficiently resisted Hector and Aníbal, the engineers in the Mexican Energy Agency who oversaw the project. María was convinced that John had known better, and had he used all his expert knowledge, he could have forced Hector and Aníbal to avoid their mistakes³⁵. She was as dismissive of John as of Miguel and, in the end, she concluded that "*Mexico was in bad shape*".

John has not read my results in detail but he approved what he did read. When I asked for his comments, he replied that his time in Autogeneración was "*the darkest days in my career*". Jack³⁶ read the monograph, listened to my presentation in a research seminar and commented in writing. He shared Maria's sentiments but with the opposite normative conclusions. He considered my methodology appropriate to the task and added that the case studies furnished "*good base material*". He repeated the same interpretation he had produced in Mexico: John's benevolent efforts in fair play had been in vein and my results confirmed Jack's experience in Algeria again, i.e. that local experts are humiliated for example when a foreigner uses the local language to work. For Jack, a foreign expert is pretty much in a trap vis-à-vis local colleagues. Unfortunately, my results were never to be shown to the Chadian experts before the end of Appui Technique. I needed the agreement of Martin who refused to distribute them. He would likely have been unable to continue working with the Chadian experts after they had read them. Given the instability of the administration in Chad, any foreign criticism would threaten the already tenuous tolerance of the foreign presence³⁷. The results regarding the experts and artisans were simply too revealing for Martin to show them to the Chadian actors. Instead he wanted to use them to prepare other experts for their assignments. In Autogeneración on the

36³⁵ Interestingly, Aníbal thought so too according to the interview we had. I left him to be the last one, after Autogeneración had been closed (see p.94).

37³⁶ Jack grew up in France and was a mechanical engineer. Today, Jack continues to work for the French consulting company who had subcontracted him to Hagler, Bailly, Inc. to work in Mexico. He spends much time in CIS countries and still speaks of starting to work part-time to stop his constant travel. He was 39 years old and single.

38³⁷ This tolerance was in fact an imperative. Without a competent local administration, for example the IBRD was some years later compelled to decide on the exploitation of the Chadian oil reserves. All types of development agencies were present and provided a substantial (and confidential) part of the government's budget. Since the end of the civil war in the mid-Eighties, there has been a French fighter plane squadron and 2,000 soldiers stationed permanently in N'Djaména (the capital). The foreign

other hand, the results were not threatening, even given the fact that John still works on occasion in Mexico today, and María and Ramón remain involved with the Energy Agency. Ramón, who avoided to see me after María talked about my results, eventually conceded and read them.

It is predominantly the conditions outside of the encounter which determine whether observation results can be returned to the actors. They are received by the actors but the comprehension of such results is difficult. As we have seen, during the encounter my presence was assessed and often exploited by the actors. The end of the project also eliminated the usefulness of the observations. They read the written results as a kind of summation of what they lived. We can conclude from the testimonies that the results were available to the actors in a form that was peculiar to each of them and meaningful only to the extent that they corroborated the actor's memory. They were recognisable but inscrutable as results. That is to say, the actors were unable to use the analysis to reinterpret and process their experience³⁸. By the end of the project, they were so overcome by the idiosyncrasy of implementation that the events had lost significance for them. We have thus established that the conditions outside of the encounter can authorize or prohibit (Chad) the review of the results. The conflicts within the project did not hinder the reception of my results; on the contrary, the conflicts facilitated their reception but rendered the objective understanding of the results difficult. The application of such results is therefore possible in principle but failed in the cases treated here.

3.3.2 Development Agencies' Responses

For development agencies, my results put into question the very possibility of codifying and perfecting assistance methods because they demonstrate that there is no single management variable that consistently affects their progress. The failures and successes seem arbitrary. Working on a hit-or-miss basis (Scott-Stevens 1987:97, or Forss et al.1988) the development agencies are unable to isolate the elements that determine a project's fate. Since there is no

presence was a precondition for security, social services and a democratic political process, see Azevedo and Nnadozie (1998), Tubiana (1994) or Buijtenhuijs (1993).

³⁹It should be noted that we cannot deduce from the evidence provided here that a different presentation of my results would not have rendered them more useful to the actors.

mechanism in place to monitor implementation, we are forced to ask as an afterthought whether or not an effort in technical assistance has achieved anything at all³⁹. The target is either hit or missed, one cannot redefine the target nor judge only a part of a project. This is an implicit rule of the technical assistance trade. Different research methods are being studied but the results are still inconclusive. Stories about the real rate of failure spread only through the corridors of agencies. The continual failure justifies the many voices that speak of the disenchantment of technical assistance and denounce its false pretences. Companies like GRET or Hagler, Bailly are in a competitive market and are unable to change the rules despite their comparatively solid and long-standing track record. Donor agencies determine the rules. However, for agencies like the IBRD or U.S.-AID, day-to-day management and planning priorities leave little time for constructive feedback. SIDA or GTZ might be better placed for this purpose. Nonetheless, we can use GRET and Hagler, Bailly's reception as a good indicator of the ultimate reaction by those who sign off on the loans for such projects.

The reception of the results on the institutional level operated according to a simple logic determined by development industry rules. Martin suggested that my results could be a valuable tool for GRET to select experts. Experts could be judged according to their reactions to the scenarios and tensions described therein. But such a tool would have to be produced by a member of GRET with their institutional bias (the particular "developer" figure)⁴⁰, one industry rule. My results would not inspire change in the conception of projects because of the focus on the practice of technical assistance, not on the role of the developer. Martin's suggestion also reflects the hit-or-miss basis: using the results only to prepare experts maintains the separation between the project design phase and the implementation phase. He knew that the encounter can only be questioned during the former, that reflects another industry rule. GRET later published part of my results in their journal (see Annex 1). This propagation was compatible with the interests of the Chadian artisans⁴¹, although they were not asked. GRET would use

40³⁹Agencies have no way of tracking the implementation of projects. We have suggested that agencies function as blind carriers of the socio-political agendas encoded onto the technical knowledge. It is possible to identify the repercussions of this political baggage on the local economy by identifying the motivations of the experts' actions. More importantly, it is possible that local experts act as invisible interlocutors for an agency, one who unknowingly determines the succession of projects and with whom the agency therefore unwittingly negotiates. The efforts of agencies to understand what happens in technical assistance are labelled evaluations. These will be scrutinized in detail after the completion of the analysis (Ch.5.5).

41⁴⁰The head of one of GRET's offices later on conducted an evaluation in N'Djaména that employed methodologically similar tools, such as unstructured interviews.

42⁴¹This journal is widely distributed in West Africa. The artisans that participated in Appui Technique were doubtless in complete agreement with the last line of the article: "It is a matter first and foremost of being more like partners than instructors." They would use this institutionally biased material to confront the foreigners with the contradiction between their behaviour and the profile of the developer therein

even more space in their journal for a full monograph on a "micro-enterprise in the informal sector of Chad"⁴². The results relating to the developpee are more "useful" for GRET than those concerning the developer. The development agencies in France and in the U.S. were too caught up in competing for projects to engage in the level of self-reflection that the analysis invites.

But the most important conclusion to draw from the reception of the results is that it was exploiting my presence during implementation that made my work interesting to the actors, not the utility of my written results. Even a monograph would not have been as useful to GRET (who could not have taken full advantage of its critical possibilities) as my presence during implementation was to the actors. Simply put, the observation results have more meaning for the actors than they have for the development agencies. The complexity of the encounter between foreigners and locals is beyond the comprehension reflected in development agency documents, and it follows logically that the observation results cannot be related to agency records of project outcome.

The inadmissibility of results on the level of the institution is corroborated by the experience of Erika Moser-Schmitt, who independently published the results of her participation in an urban development project of GTZ⁴³ (Moser-Schmitt 1984). GTZ refused to publish her research despite the fact that it was not at all incompatible with the policy of GTZ. She reflected upon the 'fear' appearing in GTZ's resistance.

It is important to emphasize that one can reconstitute the experience on the "inside" of a project of technical assistance. The reconstitution may appear impossible for "true false reasons," but these can be circumvented in various ways. The prudence of development agencies, or rather their resistance to qualitative social science research, makes sense insofar as the reconstitution of the evidence indicts them. The criticism is received as hostile and negative rather than constructive and useful. This is the agency's error and the basis for the antagonism towards

elaborated. Martin did not consider this when he sent me the journal with a thank-you letter. The strongest misrepresentation in the article is taking the pertinence of the technical objects (oxcarts and grain mills) at face value. This is another constitutive principle of the technical assistance trade.

⁴³⁴²The kind of "othering", production of cultural distance, useful in the French context.

⁴⁴⁴³GTZ is a German governmental development agency. Since the time of Moser-Schmitt's study, German anthropologists have attempted to influence the policies of the GTZ in much the same way as US anthropologists have on occasion influenced the IBRD (see Bliss 1990 and 1996, Schönhuth 1991 and 1998). They succeeded in providing analyses of the target population in those domains which are particularly problematic, namely, in rural development and the delocalization because of public works (dams, highways, etc.). Because of these fields, it was difficult for them to move beyond the developmental logic of these projects. When Moser-Schmitt returned years later with her graduate students on a field trip, she found that her results were only used in the promotional material produced for the project.

qualitative social science. There was no political or professional reason for not returning my results⁴⁴; for the development agencies or for myself.

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The conflicting response to the results (graspable but unusable for the actors) was not a function of the methodology. The contexts in which research on technical assistance is performed contribute to such paradoxes. The experts know that feedback from practice is not pertinent to the careers in their institutions. We must endeavour to better understand the current conditions of research so that we can decide which approaches work and are likely to yield useful results. However, the fact that the results were pertinent, but invalid for the development agencies, is a reflection of the institutional rejection of the approach. By increasing the status accorded institutionally to implementation, the review and application of the results would become possible⁴⁵. The gap between the importance I placed on my intimate knowledge of implementation and the engineering objects rendered my results useless to the US consulting company. On the other hand, the smaller gap between field knowledge and the objects pursued by the French NGO enabled them to appropriate my results from Appui Technique to their own ends⁴⁶.

Using the actor's immediate reaction to my results it was possible to deduce other causes for the development agencies' rejection. The hybridity of the results (i.e. they dealt with both developer and developpee traits) rendered them unusable for agency efforts to draw lessons learned in both cases. But there is no reason for this because hybridity is not an anathema when "multiculturalism" is generally positively qualified. Where does the unusability come from in the end ? Development agencies as the last resort of Western arrogance seems an unlikely explanation.

Another possibility is the symbolic complexity of the meaning of technology. This possibility will appear more plausible when we look at the first latent process (before doing so in section 5.1,

45⁴⁴Being an engineer and an ethnologist could have avoided some turf battles between engineers and social scientists during my participation in the two projects.

46⁴⁵Technocratic development agencies declaim the need to ascribe greater importance to technology (developmental objects) reducing the social dimensions of technical assistance in their discourse. Less technocratic agencies permit a fuller interrogation of the status of technology.

47⁴⁶Despite their exploitative use of the results, their gesture introduced a practical perspective on technical assistance into the institutional discourse. The article added to GRET's knowledge of Appui Technique notably regarding the pedagogy of vocational training. Finally, these conclusions confirm that getting paid by the US consulting company did not bias the response to the results (while I received no compensation from the French NGO running Appui Technique).

we will sum up each case study). An account of the manipulation of technological parameters within development agencies could confirm this. Such an account is likely to show that "the smoking gun" of the technocrat is problematic and development agencies are reluctant to try and control technocrats. Technocratic planners' disregard for the hidden character of the smoking gun may explain the contradiction between the rejection of the results and the recognition that the results are sensible.

Given the stakes for the actors, their use of my participation and the response to the results, it is plausible that the expansion of development anthropology beyond the New Directions phase was not hampered for intrinsic reasons. Despite the power differential between agencies and the "beneficiaries", applied research can elaborate genuine results. Technical assistance to industry is a viable field for research and the actor-orientation corresponds to the general conditions for ethnological fieldwork⁴⁷. This is the basis to elaborate three latent processes at work (Ch.5). Commenting on the IBRD's "Handbook on Technical Assistance" and the evaluation results of the IBRD's Operations Evaluation Division, we will then see to what extent the operational routines in development agencies reflect the latent processes (Ch.6). At least in principle, it will be possible to challenge the contradictory response from development agencies with the latent processes. Thereby we undermine the contradictory response instead of deploring it here.

3.4 Other Repercussions from the Fieldwork

Understanding participant observation through the actors' reactions and through the response to the observation results distinguishes contemporary anthropology. The ideological intensity of the encounter between developer and developpee reinforces this. Fieldwork in any area of social reality is dependent on broad social processes. The epistemology described earlier is responsible for the viability of fieldwork in technical assistance. The specific context of

⁴⁸⁴⁷ Given the limited space we cannot return to the differences between development agencies and scientific practices in different countries.

technical assistance has two more implications for fieldwork. We outline these implications here very briefly and then neglect them.

The role of technology in society is central in our industrialized world, where there is no longer any distinction possible between science and technology. Nuclear power, genetic engineering, cloning, climate change, artificial intelligence and many other issues constantly remind us that human values, democracy and a better future depend on the possibility of social choices in technology. What happens in technological assistance reflects this. These modern issues have made determinist analysis of technology laughable. Major technological shifts reflect profound values and hierarchies of society. Unless "only a god can save us now"⁴⁸ from technocrats, one can take technical knowledge from one society and do something different with it in another. The question is, who can do that and how. We can not be certain. Technical assistance practitioners do something different with technical knowledge in another society without knowing how they do that. This is one theoretical fundament of this study. We do not know whether technical assistance in general is imperialist domination or liberating utopia because technical assistance practitioners transmit values unconsciously. Admitting this, we assume that transferring technical knowledge holds a potential for social choices. Showing that practitioners actually negotiate the cultural dimension of technology, even if they ignore partly how they do it, indicates the potential of social choices.

Leaving the wider debate out of this analysis of technical assistance does not imply a normative position. A deterministic view implies the domination of importers of technology by exporters, or of developing societies by industrialized ones. If deterministic views are wrong, then this domination does not follow⁴⁹. If on the contrary, determinist views are accurate, these research results are not pertinent. Other than wasted time, the result is nil. Therefore, overall, excluding the wider role of technology and technological change in society does not imply a normative position.

To help this analysis, we employ selective works of Marcuse, Feenberg and Habermas. Though theoretical research would include differences in their positions our application is too partial to consider these differences. The same applies to social theory. This theoretical

⁴⁹⁴⁸Concluded a famous philosopher from his theorising on the role of industrial technology. Modern society would be so dependent on technology that only a new spiritual force could compensate for this dependence. Constructivist approaches to technology show, to the contrary, that science and technology are only one amongst many arenas where social and historical processes are at work. Key references for constructivist approaches to technology are Pinch et al.(1987) and Latour (1987). For a new initiative to combine technological change and international relations, see Talalay (1997).

⁵⁰⁴⁹Through their financial assistance, the IBRD and the IMF impose policy conditions on developing countries. But technical assistance is not strongly linked to financial assistance. Therefore, an analysis of

implicit follows from the above. If there is limited inherent causality of technical knowledge, what is "in the driver's seat" in technical assistance? As we have seen regarding the actors' life-worlds, the identity of developers and developpees plays a fundamental role. At the end of this study, we will have reviewed more arguments to conclude that technical assistance is fundamentally determined by the shifting identities of the actors. The participants of Autogeneración and those of Appui Technique are not the same developers and developpees, respectively, at the end of these technical assistance events.

Friedman's, Giddens' and Habermas' theoretical work concern modernity as a specific historical movement. The actors of technical assistance have by definition a modernising ethos. This creates a specific identity positioning. The Theory of Communicative Action has often been criticized for some arch-modernist implications. Identity formation being a fundamental of technical assistance, referring to this theory could represent an acceptance of these implications. In other words, distinguishing strategic from communicative action in the encounter between developers and developpees (section 5.4), could imply that their communicative competences mark levels of modernity. Similarly, Giddens theoretical work of the self-reflexivity of individuals in society could be employed for technical assistance. The global anthropology pursued by Friedman (used in section 5.2) concerns available identity positions in a global identity space. Again these theoretical positions are not always compatible.

Both regarding technology and social theory, selective applications do not require theoretical clarification because the quality of fieldwork is of central importance (therefore it is evoked here). The actors' faculties are more important than theoretical coherence. Ethnological analysis establishes the fundamental conditions of developer/developpee encounters. Participant observation in technical assistance, as described, can neglect both technology and social theory because the actors' faculties determine what is going on. The two implicit assumptions in this study are justifiable because participant observation is feasible. The theoretical demonstration of these fieldwork implications will be treated later. Readers familiar with these theoretical aspects might read the following interpretation of the events with this in mind.